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of Transportation

**National Highway
Traffic Safety
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Washington, D.C. 20590

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Indiana

ON-SITE AIR BAG INVESTIGATION

CASE NO. - 95-08

FLEET - PRIVATE VEHICLE

LOCATION [REDACTED] TEXAS

ACCIDENT DATE - [REDACTED] 1995

Submitted By:

**[REDACTED]
Senior Staff Associate**

and

**[REDACTED]
Associate Scientist**

[REDACTED] 1995

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and

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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				6. Performing Organization Code	
7. Author(s) [REDACTED] and [REDACTED]				8. Performing Organization Report No. TRC/IU 95-08, Tasks 0016, 0028, & 0058	
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15. Supplementary Notes On-site air bag deployment investigation involving a 1995 Plymouth Voyager, minivan, with manual belts and dual front air bags					
16. Abstract This report covers an on-site investigation of an air bag deployment crash that involved a 1995 Plymouth Voyager minivan and a 1985 Chevrolet Suburban four-door utility vehicle. The Voyager was traveling west in the left-hand turn lane of the westbound roadway which was part of a five-lane divided trafficway (i.e., two eastbound and two westbound through lanes and one opposing left-hand turn lane on each side the intersection). The Voyager was turning left intending to travel southbound. The Suburban was traveling eastbound in the inside eastbound lane on the two-lane eastbound roadway of the same trafficway. The front right of the Voyager (case vehicle) impacted the front left of the Suburban (vehicle #2) causing the case vehicle's driver side and right-front passenger side supplemental restraints (air bags) to deploy. The Voyager rotated approximately 150 degrees after impact and came to rest approximately 17 meters (56 feet) eastward in the inside lane of the eastbound roadway heading east. Vehicle #2 rotated approximately 45 degrees clockwise after impact and came to rest approximately 9 meters (30 feet) heading southeastward. The case vehicle's driver (38 year-old female) was also restrained by the available, active, three-point, lap and shoulder belt and sustained, according to her interview, minor facial abrasions. The other three passengers in the case vehicle (9 year-old male--right front, 12 year-old female--second seat left, and 4 year-old female--second seat right) were also restrained by their available, active, three-point, lap and shoulder belts; however, the right front and right second seated passengers had their shoulder belts behind their back. The right front passenger sustained, according to his medical records, fatal brain injuries which included: a concussion, subdural and subarachnoid hemorrhages, and severe cerebral edema; an atlanto-occipital dislocation; and soft tissue injuries. According to the case vehicle driver, the left second seated passenger sustained a shoulder contusion, and the right second seated passenger was not injured.					
17. Key Words Motor Vehicle Traffic Accident Air Bag Deployment Injury Severity			18. Distribution Statement General Public		
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TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 95-08

FLEET - PRIVATE VEHICLE
LOCATION - [REDACTED] TEXAS

SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1995 Plymouth Voyager minivan and a 1985 Chevrolet Suburban four-door utility vehicle occurring on [REDACTED] 1995 at 6:30 p.m., near [REDACTED], Texas on a city street. This crash is of special interest because the right front passenger in the minivan was fatally injured by the van's deploying right front air bag.

The Voyager was traveling west in the left-hand turn lane of the westbound roadway which was part of a five-lane divided trafficway (i.e., two eastbound and two westbound through lanes and one opposing left-hand turn lane on each side the intersection). The Voyager was turning left intending to travel southbound when it impacted the Suburban which was traveling eastbound in the inside eastbound lane on the two-lane eastbound roadway of the same trafficway. The Voyager rotated approximately 150 degrees after impact and came to rest approximately 17 meters (56 feet) eastward in the inside lane of the eastbound roadway heading east. The Suburban rotated approximately 45 degrees clockwise after impact and came to rest approximately 9 meters (30 feet) heading southeastward.

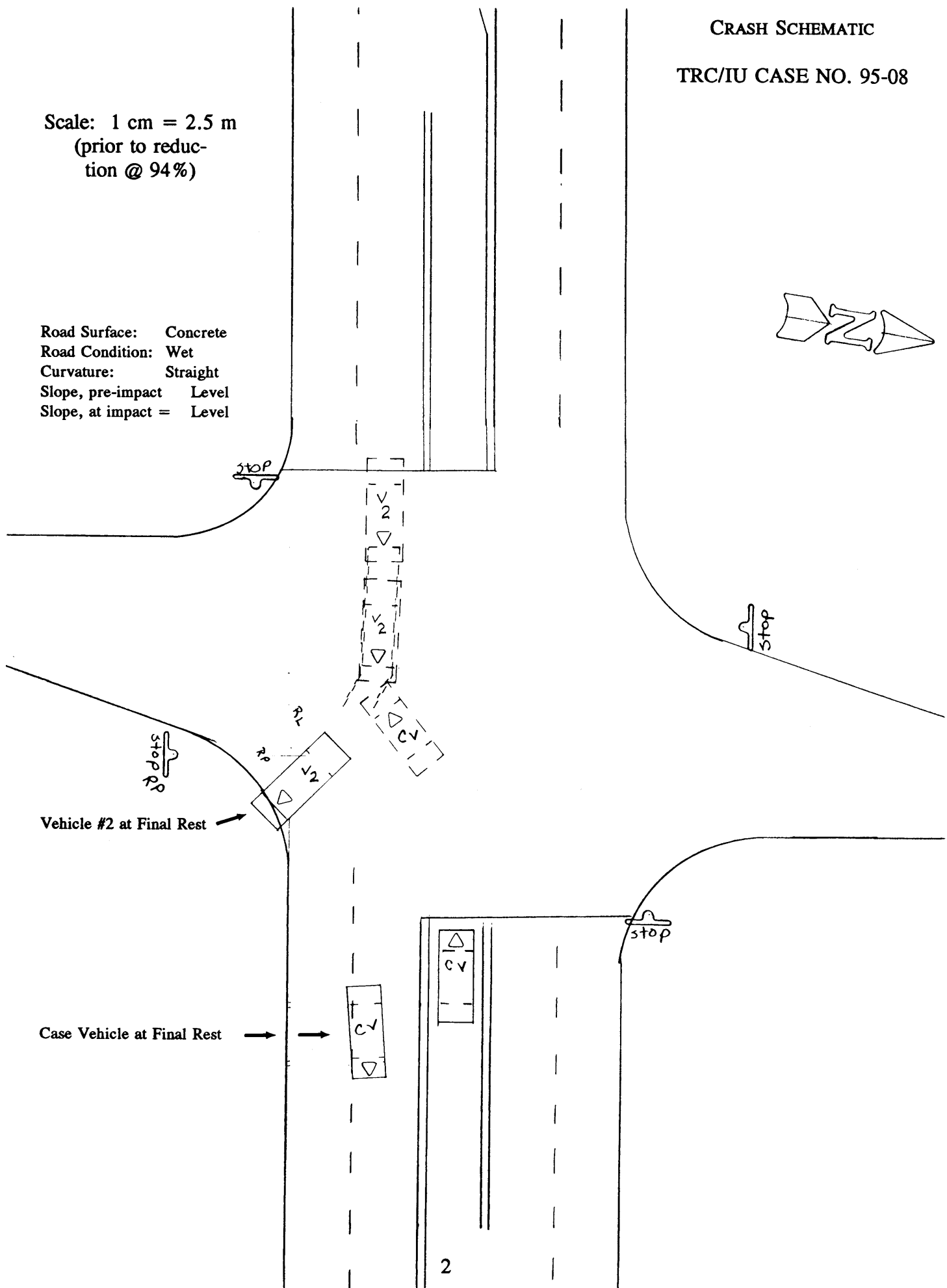
The front right of the Voyager impacted the front left of the Suburban. The CDCs were determined to be: 01-FDEW-2 for the Voyager and 12-FDEW-2 for the Suburban. The CRASHPC reconstruction program, damage only algorithm, was used on the impact (highest severity to the Voyager. The Total, Longitudinal, and Lateral Delta Vs are respectively: 29 k.p.h. (18 m.p.h.), -26 k.p.h. (-16 m.p.h.), and -12 k.p.h. (-8 m.p.h.).

The 1995 Plymouth Voyager was equipped with both driver and right-front passenger supplemental restraint systems (air bags) which deployed as a result of the frontal impact. The driver of the vehicle (38 year-old female) was also restrained by the available, active, three-point lap and shoulder belt. She sustained, according to her interview, minor facial abrasions. The driver of the Voyager was listed on the Police Accident Report as sustaining a "C" (possible) injury as a result of this crash. The right front passenger (9 year-old male) was also restrained by the available, active, three-point lap and shoulder belt; however, he had his shoulder belt behind his back. He sustained, according to his medical records, fatal brain injuries which included: a concussion, subdural and subarachnoid hemorrhages, and severe cerebral edema; an atlanto-occipital dislocation; and soft tissue injuries. According to the Police Accident Report, the right front passenger sustained a "K" (fatal) injury. The other passengers (12 year-old female--left second seat and 4 year-old female--right second seat) were also restrained by their available, active, three-point lap and shoulder belts; however, the right second seated passenger also had her shoulder belt behind her back. According to the case vehicle driver, the left second seated passenger sustained a minor shoulder contusion and the right second seated passenger was not injured. The other two passengers in the Voyager were listed on the Police Accident Report as not sustaining any injury as a result of this crash. The driver (18 year-old male) of the Suburban was listed on the Police Accident Report as not sustaining any injury as a result of this crash.

CRASH SCHEMATIC
TRC/IU CASE NO. 95-08

Scale: 1 cm = 2.5 m
(prior to reduction @ 94%)

Road Surface: Concrete
Road Condition: Wet
Curvature: Straight
Slope, pre-impact Level
Slope, at impact = Level



TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 95-08

FLEET - PRIVATE VEHICLE
LOCATION - [REDACTED], TEXAS

ACCIDENT DATA

Location/Street:	City Street
City/Township:	[REDACTED] near [REDACTED] Texas
Area/Type:	Rural, residential
Accident Date/Time:	[REDACTED] 1995, @ 6:30 p.m.
Investigating Police Agency:	[REDACTED] Sheriff Department
Accident Type:	Minivan / Utility Vehicle - obtuse angle
Occupant Injury Severity (air bag vehicle):	Subdural hemorrhage, bilaterally, and cerebral edema (AIS-5)

AMBIENT CONDITIONS

Light Conditions:	Dark but lighted
Weather Condition:	Precipitating
Precipitation:	Misting/drizzling, steady
Road Surface:	Wet

ROADWAY

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Location:	City street	City street
Number of Travel Lanes:	3-lanes, divided	3-lanes, divided
Width:	3.0 meters (9.8 feet)	3.6 meters (11.8 feet)
Surface Type:	Concrete	Concrete
Median:	Barrier curb	Barrier curb
Shoulders:	Curbed, no shoulders	Curbed, no shoulders
Vertical alignment:	Level	Level

ROADWAY (CONTINUED)

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Horizontal alignment:	Straight	Straight
Estimated Coefficient of Friction:	.45	.45
Traffic Density:	Light	Light

TRAFFIC CONTROLS

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Signals:	None	None
Signs:	Regulatory STOP sign	Regulatory STOP sign
Markings:	Raised white lane separation between left-hand turn lane and through lanes	Raised white lane separation between left-hand turn lane and through lanes
Speed Limit:	48 k.p.h. (30 m.p.h.)	48 k.p.h. (30 m.p.h.)

VEHICLES

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Year:	1995	1985
Make:	Plymouth	Chevrolet
Model:	Voyager	Suburban
Body Type:	Minivan	4-door utility vehicle
V.I.N.	1P4GH44R1SX-----	1G8EC16L9FF-----
Color:	Blue-silver	Blue-gray
Mileage:	4,587 km (2,850 miles)	240,772 km (149,609 miles)
Engine:	3.3 liters,	5.7 liters,
Transmission:	4-speed automatic	4-speed automatic
Steering:	Power-assisted, rack-and-pinion	Power-assisted, worm and gear
Brakes:	Power-assisted, front disc rear drum with antilock	Power-assisted, front disc, rear drum

VEHICLES (CONTINUED)

Padding:	Steering wheel and hub, sunvisors, dash, "A"-pillars, side door surfaces	Steering wheel, upper dash, sunvisors, side door surfaces
Active Restraints:	3-point, manual, lap and shoulder belts in front and second row outboard seating positions; lap belt only at three rear bench position	3-point, manual, lap and shoulder belts in front outboard seating positions; lap belts only at second and rear seating positions
Passive Restraints:	Factory installed driver and right front passenger supplemental restraint systems (air bags)	None
Defects:	None	None
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

VEHICLE DAMAGE

<u>EXTERIOR</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
<u>Deployment Impact</u>		
Event number:	First	First
Object Struck:	Vehicle #2	Case vehicle
Damage location		
Damaged Plane:	Front	Front
Vertical Location		
On Plane:	Bumper	Bumper
Direct Begins:	At right bumper corner	At left bumper corner
Length Direct:	108 cm (42.5 in)	135 cm (53.1 in)
Field L:	154 cm (60.6 in)	187 cm (73.6 in)
C ₁ :	2 cm (0.8 in)	37 cm (14.6 in)
C ₂ :	1 cm (0.4 in)	34 cm (13.4 in)
C ₃ :	10 cm (3.9 in)	26 cm (10.2 in)
C ₄ :	13 cm (5.1 in)	10 cm (3.9 in)
C ₅ :	19 cm (7.5 in)	1 cm (0.4 in)
C ₆ :	30 cm (11.8 in)	0 cm (0.0 in)
D:	+25 cm (+9.8 in)	-26 cm (-10.2 in)
Maximum Crush:	30 cm (11.8 in)	37 cm (14.6 in)
Location:	C ₆	C ₁
CDC:	01-FDEW-2	12-FDEW-2

VEHICLE DAMAGE (CONTINUED)

EXTERIOR (Continued)**Case Vehicle****Vehicle #2****Deployment Impact** (Continued)

Damaged Components:

Front bumper, grille,
hood, radiator, right
headlight assembly and
front fenderFront bumper, grille,
radiator, left front fender,
left and right headlight
assemblies**INTERIOR**

Damaged Components:

Dual air bags

left lower dash

Other Evidence of
Occupant Contact:

None

Windshield mounted rear
view mirrorManual Restraint
System Failures:

None

None

Seat Performance
Failures:

None

None

REPAIR

Cost Estimate:

Unknown

Unknown

VEHICLE VELOCITY ESTIMATES¹

Highest Delta "V"**Case Vehicle****Vehicle #2**

Reconstruction Program:

CRASHPC and EDCRASH

CRASHPC and EDCRASH

Program Algorithm:

Damage only

Damage only

Travel Speed:¹

20 k.p.h. (13 m.p.h.)

36 k.p.h. (23 m.p.h.)

Total Delta "V":

29 k.p.h. (18 m.p.h.)

19 k.p.h. (12 m.p.h.)

Longitudinal Delta "V":

-26 k.p.h. (-16 m.p.h.)

-19 k.p.h. (-12 m.p.h.)

Lateral Delta "V":

-12 k.p.h. (-8 m.p.h.)

+3 k.p.h. (+2 m.p.h.)

¹ This contractor estimates the travel speeds at impact were most like: 16-24 k.p.h. (10-15 m.p.h.) for the case vehicle and 32-40 k.p.h. (20-25 m.p.h.) for vehicle #2.

COLLISION SEQUENCE

PRE-CRASH: According to the Police Accident Report and the interview with the case vehicle's driver, the case vehicle (Voyager) was traveling west in the left-hand turn lane of the westbound roadway which was part of a five-lane, divided trafficway (i.e., two eastbound and two westbound through lanes and one opposing left-hand turn lane on each side the intersection). The case vehicle was turning left from a stop intending to travel southbound. According to the Police Accident Report and the driver of vehicle #2, vehicle #2 was traveling eastbound in the inside eastbound lane on the two-lane eastbound roadway of the same trafficway and was attempting to continue eastbound through the intersection. According to the driver of the case vehicle, she braked and steered left. The case vehicle continued southwestward prior to impact. According to the Police Accident Report and the driver of vehicle #2, he steered right and braked. Vehicle #2 moved slightly southward just prior to impact. The accident occurred in the four-leg intersection of the two roadways.

CRASH: According to the Police Accident Report and the vehicle inspections, the front right of the case vehicle impacted the front left of vehicle #2 causing the case vehicle's driver side and right-front passenger side supplemental restraints (air bags) to deploy. According to the police accident report and the physical evidence present at the scene, the case vehicle rotated approximately 150 degrees after impact and came to rest approximately 17 meters (56 feet) eastward in the inside lane of the eastbound roadway heading east. Vehicle #2 rotated approximately 40 degrees clockwise after impact and came to rest approximately 9 meters (30 feet) heading southeastward.

POST-CRASH:

Occupants: According to the Police Accident Report and the interview with the case vehicle's driver, the driver of the case vehicle remained inside the vehicle at final rest. She was conscious and able to exit the case vehicle. The right front passenger remained inside the vehicle at final rest. He was unconscious and unable, because of his injuries, to exit the case vehicle. The other two passengers--who were seated in bucket seats in the second seating row, remained inside the vehicle at final rest. They were also conscious and able to exit the case vehicle. According to the Police Accident Report and the driver of the case vehicle, the driver, right front passenger, and left second-seated passenger² were all restrained by their available, active, three-point lap and shoulder belts; however, according to the emergency medical technicians who treated the right front passenger, he had his shoulder belt behind his back. According to the Police Accident Report and the case vehicle's driver, the right second-seated passenger was restrained by her available, active, three-point lap and shoulder belt but had her shoulder portion behind her back. The vehicle inspection indicated restraint usage at the left front and second seats; see SELECTED PHOTOGRAPHS #43 through #46.

² The case vehicle driver (mother) indicated in her interview that this occupant had her torso belt behind her back at the time of the crash; however, she also indicated that this occupant sustained a left shoulder contusion from the torso portion of her safety belt.

COLLISION SEQUENCE (CONTINUED)

Occupants: (Continued)

Police: According to the Police Accident Report, the investigating police agency was notified of the accident within seven minutes and arrived on-scene within twenty-one minutes. Traffic control procedures were established and emergency medical and towing services were called to assist.

Rescue: According to the Police Accident Report, the interview with the case vehicle's driver, and the emergency medical services record, the driver accompanied her son to a medical facility where she was treated and released. The right front passenger was transported by ambulance to a medical facility where he was hospitalized and subsequently pronounced dead approximately twenty hours post-crash. According to the Police Accident Report and interview with the driver, the rear seated passengers were not transported, and according to the driver, they were not treated. According to the interview with the case vehicle's driver, she sustained minor facial abrasions, the left second-seated passenger sustained a shoulder contusion, and the right second-seated passenger was not injured. The right front passenger sustained, according to his medical records, fatal brain injuries which included: a concussion, subdural and subarachnoid hemorrhages, and severe cerebral edema. He also sustained an atlanto-occipital dislocation, and multiple soft tissue injuries to his face and chest.

Removal: Following the police investigation, the case vehicle and vehicle #2 were towed from the scene.

HUMAN FACTORS/OCCUPANT DATA

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
<u>DRIVERS:</u>	38 year-old female	18 year-old male
Height:	168 cm (66 in)	178 cm (70 in)
Weight:	59 kg (130 lbs)	70 kg (155 lbs)
Occupation:	Professional; however, she resigned post-crash to become a housewife	High school student
Active Restraint System/Usage:	3-point lap and shoulder/Used	3-point lap and shoulder/Not used
Usage Source:	Vehicle inspection, Interviewee, and Police Accident Report	Vehicle inspection
Passive Restraint System/Usage:	Factory installed air bag/Deployed	None

HUMAN FACTORS/OCCUPANT DATA (CONTINUED)

Usage Source:	Vehicle inspection, Interviewee, and Police Accident Report	Not applicable
Eye glasses/contacts:	Contacts	None
Vehicle Familiarity:	5 months, ~ 4,500 km (2,800 mi) total	2 years, ~ 12,550 km (7,800 mi) total
Route Familiarity:	Twice weekly	Twice weekly
Trip Plan:	Social/recreational to home	Home to girlfriend's house
Manner of Leaving Scene:	Ambulance	Police
Type of Medical Treatment:	Treated and released	None

	<u>Right Front</u>	<u>Left Second-Seated</u>	<u>Right Second-Seated</u>
<u>CASE VEHICLE PASSENGERS:</u>	9 year-old male	12 year-old female	4 year-old female
Height:	140 cm (55 in)	155 cm (61 in)	109 cm (43 in)
Weight:	29 kg (65 lbs)	39 kg (85 lbs)	18 kg (40 lbs)
Active Restraint System/Usage:	3-point lap and shoulder/used, but shoulder belt was behind back	3-point lap and shoulder/used	3-point lap and shoulder/used, but shoulder belt was behind back
Usage Source:	Medical records	Vehicle inspection, Interviewee, Police Accident Report	Interviewee and Police Accident Report
Passive Restraint System/Usage:	Right front air bag/Deployed	None	None
Usage Source:	Vehicle inspection, Interviewee, Police Accident Report	Not applicable	Not applicable
Eye glasses/contacts:	None	Eyeglasses	None
Manner of Leaving Scene:	Ambulance	Private vehicle	Private vehicle
Type of Medical Treatment:	Hospitalized	None	None

CASE VEHICLE DRIVER INJURIES³

<u>Description of Injury³</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Abrasion nose	290202.1,4	7	Air bag driver's side	{Certain}
Abrasion below nose (i.e., lips and/or chin)	290202.1,8	7	Air bag driver's side	{Certain}

CASE VEHICLE RIGHT FRONT PASSENGER INJURIES^{4,5}

<u>Description of Injury⁴</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Concussion, unconscious, unresponsive to pain	160824.5,0	2	Air bag passenger side	{Certain}
Subdural hemorrhages, bilateral	140654.5,3	1	Air bag passenger side	{Certain}
Cerebral edema, severe	140674.5,9	1	Air bag passenger side	{Certain}
Subarachnoid hemorrhages, right	140684.3,1	1	Air bag passenger side	{Certain}
Subarachnoid hemorrhages, left	140684.3,2	1	Air bag passenger side	{Certain}
Atlanto-occipital dislocation (i.e., dissociation with distraction ⁵)	650208.2,6	2	Air bag passenger side	{Certain}
Contusion right orbit	297402.1,1	1	Air bag passenger side	{Certain}
Abrasions face, all aspects	290202.1,0	1	Air bag passenger side	{Certain}
Contusion lips	290402.1,8	1	Air bag passenger side	{Certain}

³ The driver of the case vehicle, through her attorney, refused to sign a medical release for herself or any of her children.

⁴ This contractor wishes to express our appreciation to the representative of the National Transportation Safety Board for obtaining this occupant's autopsy, hospital, and emergency medical records.

⁵ The autopsy described this injury as a "broken neck"; however, the neurosurgical consultant identified an atlanto-occipital dislocation, and identified a 17 millimeter distance between the basion and the dens. The radiological report described this injury as an occipital atlanto dissociation with distraction and no significant anterior or posterior subluxation. The key words: basion, dissociation, and distraction are defined in [REDACTED] as follows:

basion (ba-se-on) -- the midpoint of the anterior border of the foramen magnum.

dissociation (dis-so"she-a-shun) -- the act of separating or state of being separated.

distraction (di-strak'shun) -- a form of dislocation in which the joint surfaces have been separated without rupture of their binding ligaments and without displacement.

CASE VEHICLE RIGHT FRONT PASSENGER INJURIES (CONTINUED)⁶

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Laceration frenulum ⁶ of lower lip	290602.1,8	1	Air bag passenger side	{Certain}
Contusion right chest	490402.1,1	1	Air bag passenger side	{Probable}
Contusion left chest	490402.1,2	1	Air bag passenger side	{Probable}

CASE VEHICLE LEFT SECOND-SEATED PASSENGER INJURIES

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Contusion left shoulder (i.e., left upper chest @ base of neck)	790402.1,20	7	Torso belt	{Probable}

CASE VEHICLE RIGHT SECOND-SEATED PASSENGER INJURIES⁷

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Not {possibly ⁷ } injured	0	7	Not applicable	Not applicable

VEHICLE #2 DRIVER INJURIES

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Contusion left knee	890402.1,2	7	Left dash	{Certain}

DRIVER KINEMATICS

According to the case vehicle's driver, immediately prior to the crash, she was seated upright with her back against the seatback, her left foot on the floor, her right foot on the brake, and

⁶ [REDACTED] defines "frenulum" in general and specific as follows:
frenulum -- a general term for a small fold of integument or mucous membrane that checks, curbs, or limits the movements of an organ or part
f. of inferior lip, f. labii inferioris, f. labii superioris -- the fold of mucous membrane on the inside of the middle of the {lower, upper} lip, connecting the lip with the gums

⁷ The case vehicle's driver indicated that she did not remember any injuries to this occupant; however, there may possibly have been some.

DRIVER KINEMATICS (CONTINUED)

both hands on the steering wheel. According to the scene evidence and the damage locations on both vehicles (i.e., primary contact area was the front right corner of the case vehicle and the front left of vehicle #2), the case vehicle's driver braked and steered to the left to avoid the crash which most likely made the driver lean slightly to her right at impact.

Based on the vehicle and scene inspections, the case vehicle's primary impact with vehicle #2 not only deployed the driver's side air bag but thrust the driver forward, directly contacting the deploying air bag (red lipstick mark) and pitching the driver upward. Inspection of the driver's seat track showed it was in the middle to forward position with the seatback in the upright position. Because the driver was wearing her available, active, three-point lap and shoulder belt, it locked up as a result of the collision, thus preventing the case vehicle's driver from loading the steering wheel assembly. In addition, the windshield was not contacted by the driver. The case vehicle's supplemental restraint system (air bag) appears to have work as designed by preventing the driver from sustaining any serious injuries.

According to the Police Accident Report and evidence collected at scene, the case vehicle rotated approximately 150 degrees counterclockwise after impact, coming to rest in the inside eastbound lane facing east. At final rest the driver remained primarily in her original seating position.

PASSENGER KINEMATICS

According to the case vehicle's driver, prior to the crash, the right front passenger was seated upright with his back against the seatback, his feet hanging down, and his arms on his lap. At impact the boy most likely moved forward and to the right approximately 25 degrees (PDOF) contacting the deploying air bag. The driver indicated in her interview that her child was properly wearing the available, active, three-point lap and shoulder belt. The driver of vehicle #2 also stated in his interview that he thought the right front passenger was wearing his belts; however, according to the emergency medical records, an EMT who made the initial assessment on the boy stated in the report: "passenger front right -- lap belt only (shoulder harness cut from behind patient)". The driver (i.e., mother) does not recall anyone moving the shoulder strap after the crash, but she did not remain in the case vehicle the whole time prior to the EMT's arrival. A visual inspection and analysis done by NTSB personnel on the D-ring of the right front shoulder strap showed no markings, but was considered inconclusive. According to the NTSB investigator, the lap portion of the right front belt⁸ did have blood stains on it showing usage at the time of the crash. An inspection of the seat track placement was also inconclusive showing only a rust mark on one of the notches. If the rust mark was any indication of the seat track placement, then the seat was between the middle and rear most position (which is most likely). There was a skin transfer on the passenger air bag as well as a small blood spot. No other contacts were found. The available evidence indicates that the right front passenger air bag was responsible for the fatal injuries sustained by the boy. If the shoulder belt portion of the right front belt had been over the boy's right shoulder, which it most likely was not, then the injuries sustained most likely would have been greatly reduced.

⁸ The right front lap and shoulder belt had been removed from the case vehicle by the NTSB investigator prior to this contractor's inspection.

PASSENGER KINEMATICS (CONTINUED)

According to the case vehicle's driver, the left second-seated passenger was most likely sitting upright with her back against the seatback and her hands on her lap. At impact the girl was most likely thrown forward and to the right loading her available, active, three-point lap and shoulder belt which she was wearing. A visual inspection of the left second seat's D-ring showed definite belt markings, and these markings were verified by NTSB personnel. No other contacts related to this passenger were found, and the case vehicle's driver reported only a shoulder belt-related contusion for this occupant.

According to the case vehicle's driver, the right second-seated occupant was most likely seated upright with her back against the seatback, hands in her lap, and feet hanging down. At impact the girl most likely moved forward and to the right loading her available, active, three-point lap and shoulder belt of which only the lap belt portion was being properly used. Both the driver and the Police Accident Report indicated that her shoulder portion was behind her back. No contacts related to this passenger were found, and she sustained no injuries according to the case vehicle's driver.

AIR BAG SYSTEM

	<u>DRIVER AIR BAG</u>	<u>PASSENGER AIR BAG</u>
Air bag Diameter (seam-to-seam, deflated):	57 cm (22.4 in)	49 cm (19.3 in)
Number of Vent Holes:	Two	None
Vent Hole Diameter:	2.5 cm (1.0 in)	Not applicable
Vent Hole Clock Positions:	11 and 1 o'clock	Not applicable
Generant Residue:	No unusual amount found	No unusual amount found

DISCUSSION

This contractor obtained (i.e., two separate follow-ups) the opinions of (a) two medical consultants, (b) an engineering consultant, (c) three witnesses, and (d) the case vehicle's driver regarding the two key issues in this investigation. The first issue concerned whether or not the right front passenger was using the torso portion of his safety belt, and the second issue involved what caused this child's fatal lesions. Both medical consultant's reviewed the collision sequence, selected photographs of the crash scene and case vehicle, and the right front passenger's medical records. Both of the consultants concurred with this contractor's determination that (1) the child was not using the shoulder belt and (2) the case vehicle's right front air bag caused the fatal lesions. The detailed opinion of each medical consultant is contained in **APPENDIX Q**. The engineering consultant also reviewed the investigative evidence, and in addition, he reviewed the driver's and signed witness statements (see **APPENDIX T**) as well as the case vehicle's right front safety belt assembly, passenger air bag module, and passenger armrest cover. The engineering consultant also concluded (see **APPENDIX S**) that the child was not using the shoulder belt.

ACCIDENT COLLISION MEASUREMENT TABLE

ACCIDENT COLLISION MEASUREMENT TABLE

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

Primary Sampling Unit Number 10

Case Number—Stratum 9508

ACCIDENT COLLISION DIAGRAM

Document the physical plant:

- all road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, parked vehicles, poles, signs, etc.)
- all traffic controls (e.g., speed limit)
- north arrow placed on diagram
- roadway surface type and condition of applicable roadways
- grade measurements for all applicable roadways and at location of rollover initiation
- roadway curvature

Document vehicle dynamics including:

- reference point and reference line relative to physical features present at the scene
- scaled documentation of all accident induced physical evidence
- scaled documentation of all roadside objects contacted
- scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either:
 - a) physical evidence, or
 - b) reconstructed accident dynamics

CRASH DATA

VEH. #1	VEH. #2	VEH. #3
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Heading Angle - 128 83

Surface Type Cement

Surface Condition WET WET

Coefficient of Friction .55 .55

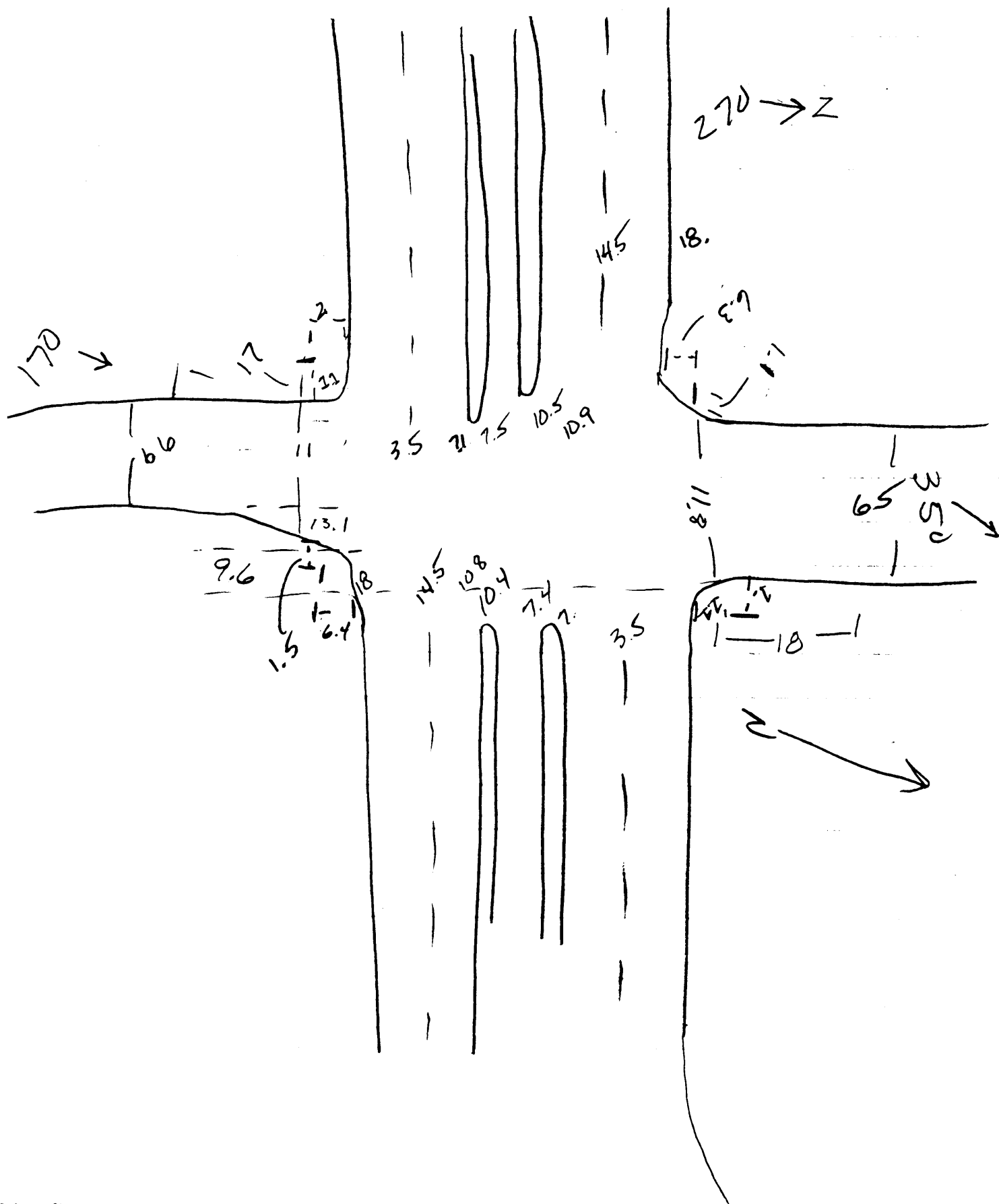
Grade (v/h) _____
Measurement Level _____
(between impact _____
and final rest)

Grade (v/h)
Measurement _____
(at location of
rollover initiation)

Reference Point: stop sign
S/W corner

Reference line: South Edge
of ROADWAY

[illegible]



Appendix A:

POLICE ACCIDENT REPORT

PLACE WHERE ACCIDENT OCCURRED		CITY OR TOWN		LOC. NO.	
COUNTY		CITY OR TOWN		DO NOT WRITE IN THIS SPACE	
IF ACCIDENT WAS OUTSIDE CITY LIMITS, INDICATE DISTANCE FROM NEAREST TOWN		MILES		NORTH S E W OF	
ROAD ON WHICH ACCIDENT OCCURRED		DRIVE		CONSTR. ZONE	
INTERSECTING STREET OR RR X'ING NUMBER		ROUTE NUMBER OR STREET CODE		SPEED LIMIT	
NOT AT INTERSECTION		SHOW MILEPOST OR NEAREST INTERSECTING NUMBERED HIGHWAY IF NONE, SHOW NEAREST INTERSECTING STREET OR REFERENCE POINT		FAT REC	
DATE OF ACCIDENT		95 DAY OF		HOUR 6:30	
		19 WEEK		A.M. IF EXACTLY NOON P.M. OR MIDNIGHT, SO STATE	

UNIT NO. 1 - MOTOR VEHICLE		VEN IDENT NO. 1G8EC16L9FF		IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY	
YEAR MODEL 1985		COLOR & MAKE BLU-GRY/CHEVY		MODEL NAME SUBURBAN	
DRIVER'S NAME		CITY		STATE	
DRIVER'S LICENSE		DOB		RACE W SEX M OCCUPATION STUDENT	
SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS)		ALCOHOL/DRUG ANALYSIS RESULT		PEACE OFFICER, EMS DRIVER, FIRE FIGHTER ON EMERGENCY?	
LESSEE		OWNER		TEXAS	
LIABILITY		INSURANCE		VEHICLE DAMAGE RATING FL-4	

UNIT NO. 2 TOWED		VEN IDENT NO. 1P4GH44R15X		IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY 7	
YEAR MODEL 1995		COLOR & MAKE BLU-SIL/PLYMOUTH		MODEL NAME VOYAGER	
DRIVER'S NAME		CITY		STATE	
DRIVER'S LICENSE		DOB		RACE W SEX F OCCUPATION NURSE	
SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS)		ALCOHOL/DRUG ANALYSIS RESULT		PEACE OFFICER, EMS DRIVER, FIRE FIGHTER ON EMERGENCY?	
LESSEE		OWNER		RFQ-3	
LIABILITY		INSURANCE		VEHICLE DAMAGE RATING	

DAMAGE TO PROPERTY OTHER THAN VEHICLES					
NONE					
OBJECT	NAME AND ADDRESS OF OWNER		FEET FROM CURB		DAMAGE ESTIMATE
LIGHT CONDITION	WEATHER	SURFACE CONDITION	TYPE ROAD SURFACE	DESCRIBE ROAD CONDITIONS (INVESTIGATOR'S OPINION)	
1-DAYLIGHT	1-CLEAR/CLOUDY	1-DRY	1-BLACKTOP	WET SLICK BLACKTOP	
2-DAWN	2-RAINING	2-WET	2-CONCRETE		
3-DARK-NOT LIGHTED	3-SNOWING	3-MUDDY	3-GRAVEL		
4-DARK-LIGHTED	4-FOG	4-SNOWY/ICY	4-SHELL		
5-DUSK	5-BLOWING DUST	5-OTHER	5-DIRT		

IN YOUR OPINION, DID THIS ACCIDENT RESULT IN AT LEAST \$500.00 DAMAGE TO ANY ONE PERSON'S PROPERTY?				YES NO	
CHARGES FILED					
NAME		CHARGE		CITATION NUMBER	
NAME		CHARGE		CITATION NUMBER	
TIME NOTIFIED OF ACCIDENT		DISPATCHED		TIME ARRIVED AT SCENE OF ACCIDENT	
1995 6:37p		1995 6:51p			
TYPED OR PRINTED NAME OF INVESTIGATOR		DATE REPORT MADE		IS REPORT COMPLETE	
		95		YES NO	
SIGNATURE OF INVESTIGATOR		ID NO.		DEPARTMENT HCCO	
				DIST./AREA	

EJECTED	CODE FOR TYPE RESTRAINT USED	AIRBAG CODE	HELMET USE	CODE FOR INJURY SEVERITY	ALCOHOL/DRUG ANALYSIS (COMPLETE IF CASUALTIES NOT IN MOTOR VEHICLE)
A - NOT APPLICABLE Y - YES N - NO P - PARTIALLY U - UNK	A - SEATBELT & SHOULDER STRAP B - SEATBELT & NO SHOULDER STRAP C - CHILD RESTRAINT E - SHOULDER STRAP ONLY N - NONE	Y - DEPLOYED N - NO DEPLOYMENT U - UNK IF DEPLOYED	1 - WORN-DAMAGED 2 - WORN-NOT DAMAGED 3 - WORN-UNK IF DAMAGED 4 - NOT WORN 9 - UNK IF WORN	K - KILLED A - INCAPACITATING INJURY B - NON INCAPACITATING C - POSSIBLE INJURY N - NOT INJURED	1 - BREATH 2 - BLOOD 3 - OTHER 4 - NONE 5 - REFUSED

UNIT NO 1	TOWED DUE TO DAMAGE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	VEHICLE REMOVED TO BY WRECKER SERVICE
DAMAGE RATING	FL-4	

OCCUPANT'S POSITION	COMPLETE ALL DATA ON ALL OCCUPANTS' NAMES, POSITIONS, RESTRAINTS USED, ETC. HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED.	NAME (LAST NAME FIRST)	ADDRESS	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE	
1 DRIVER	SEE FRONT			N	A	N		4	18	M	N
2											
3											
4											
5											

UNIT NO 2 (COMPLETE ONLY IF UNIT NO 2 WAS A MOTOR VEHICLE)	TOWED DUE TO DAMAGE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	VEHICLE REMOVED TO BY WRECKER SERVICE
DAMAGE RATING	RFQ-3	

OCCUPANT'S POSITION	COMPLETE ALL DATA ON ALL OCCUPANTS' NAMES, POSITIONS, RESTRAINTS USED, ETC. HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED.	NAME (LAST NAME FIRST)	ADDRESS	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE	
6 DRIVER	SEE FRONT			N	A	Y		4	38	F	C
7 RF				N	A	Y		4	9	M	K
8 LR				N	A	N		4	12	F	N
9 RR				N	B	N		4	4	F	N
10											

PEDESTRIAN, PEDALCYCLIST ETC.	CASUALTY NAME (LAST NAME FIRST)	CASUALTY ADDRESS	TYPE SPECIMEN TAKEN	RESULT	HELMET	AGE	SEX	INJURY CODE
NONE	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---

DISPOSITION OF KILLED AND INJURED				IF AMBULANCE USED, SHOW		
ITEM NUMBERS	TAKEN TO	BY	TIME NOTIFIED	TIME ARRIVED AT SCENE	NO. ATTENDANTS	INC. DRIVER
6	HOSPITAL	EMS MEDIC	6:34	6:40pm	2	
7	HOSPITAL	EMS MEDIC	6:34	6:40pm	2	

ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH
7	95	2:40pm	---	---	---	---	---	---

INVESTIGATOR'S NARRATIVE OPINION OF WHAT HAPPENED (ATTACH ADDITIONAL SHEETS IF NECESSARY)

UNIT #2 (WB) **DRIVE ATTEMPTING TO TURN LEFT ONTO [REDACTED] AFTER STOPPING AT THE STOP SIGN (WB) [REDACTED] DRIVE. UNIT #2 WAS STRUCK BY UNIT #1 WHO WAS (EB) [REDACTED] DRIVE IN THE INSIDE LANE. UNIT #1 DISREGARDED STOP SIGN.**

WITNESS: **[REDACTED]**

DIAGRAM ☐ ONE WAY ☒ TWO WAY ☐ DIVIDED

↑ INDICATE NORTH

FACTORS AND CONDITIONS LISTED ARE THE INVESTIGATOR'S OPINION				OTHER FACTORS/CONDITIONS MAY OR MAY NOT HAVE CONTRIBUTED				TRAFFIC CONTROL																																																															
FACTORS/CONDITIONS CONTRIBUTING				OTHER FACTORS/CONDITIONS MAY OR MAY NOT HAVE CONTRIBUTED				TRAFFIC CONTROL																																																															
1. ANIMAL ON ROAD - DOMESTIC	2. ANIMAL ON ROAD - WILD	3. BACKED WITHOUT SAFETY	4. CHANGED LANE WHEN UNSAFE	5. DEFECTIVE OR NO HEADLAMPS	6. DEFECTIVE OR NO STOP LAMPS	7. DEFECTIVE OR NO TAIL LAMPS	8. DEFECTIVE OR NO TURN SIGNAL LAMPS	9. DEFECTIVE OR NO TRAILER BRAKES	10. DEFECTIVE OR NO VEHICLE BRAKES	11. DEFECTIVE STEERING MECHANISM	12. DEFECTIVE OR SLICK TIRES	13. DEFECTIVE TRAILER HITCH	14. DISABLED IN TRAFFIC LANE	15. DISOBEY STOP AND GO SIGNAL	16. DISOBEY STOP SIGN OR LIGHT	17. DISOBEY TURN MARKS AT INTERSECTION	18. DISOBEY WARNING SIGN AT CONSTRUCTION	19. DISTRACTION IN VEHICLE	20. DRIVER INATTENTION	21. DROVE WITHOUT HEADLIGHTS	22. FAILED TO CONTROL SPEED	23. FAILED TO DRIVE IN SINGLE LANE	24. FAILED TO GIVE HALF OF ROADWAY	25. FAILED TO HEED WARNING SIGN	26. FAILED TO PASS TO LEFT SAFELY	27. FAILED TO PASS TO RIGHT SAFELY	28. FAILED TO SIGNAL OR GAVE WRONG SIGNAL	29. FAILED TO STOP AT PROPER PLACE	30. FAILED TO STOP FOR SCHOOL BUS	31. FAILED TO STOP FOR TRAIN	32. FAILED TO YIELD ROW - EMERGENCY VEHICLE	33. FAILED TO YIELD ROW - OPEN INTERSECTION	34. FAILED TO YIELD ROW - PRIVATE DRIVE	35. FAILED TO YIELD ROW - STOP SIGN	36. FAILED TO YIELD ROW - TO PEDESTRIAN	37. FAILED TO YIELD ROW - TURNING LEFT	38. FAILED TO YIELD ROW - TURN ON RED	39. FAILED TO YIELD ROW - YIELD SIGN	40. FATIGUED OR ASLEEP	41. FAULTY EVASIVE ACTION	42. FIRE IN VEHICLE	43. FLEEING OR EVADING POLICE	44. FOLLOWED TOO CLOSELY	45. HAD BEEN DRIVING	46. HANDICAPPED DRIVER (EXPLAIN IN NARRATIVE)	47. ILL (EXPLAIN IN NARRATIVE)	48. IMPROPER VIGILANCE (EXPLAIN IN NARRATIVE)	49. IMPROPER START FROM PARKED POSITION	50. LOAD NOT SECURED	51. OPENED DOOR INTO TRAFFIC LANE	52. OVERSPEED VEHICLE ON ROAD	53. OVERTAKE AND PASS INSUFFICIENT CLEARANCE	54. PARKED AND FAILED TO SET BRAKES	55. PARKED IN TRAFFIC LANE	56. PARKED WITHOUT LIGHTS	57. PASSED IN NO PASSING ZONE	58. PASSED ON RIGHT SHOULDER	59. PEDESTRIAN FAILED TO YIELD ROW TO VEHICLE	60. SPEEDING - UNSAFE (UNDER LIMIT)	61. SPEEDING - OVER LIMIT	62. TAKING MEDICATION (EXPLAIN IN NARRATIVE)	63. TURNED IMPROPERLY - CUT CORNER ON LEFT	64. TURNED IMPROPERLY - WIDE RIGHT	65. TURNED IMPROPERLY - WRONG LANE	66. TURNED WHEN UNSAFE	67. UNDER INFLUENCE - ALCOHOL	68. UNDER INFLUENCE - DRUGS	69. UNDER INFLUENCE - APPROACH ON IN INTERSECTION	70. WRONG SIDE - NOT PASSING	71. WRONG WAY - ONE WAY ROAD	72. OTHER FACTOR (WRITE IN ON LINE BELOW)

Appendix B:

RECONSTRUCTION PROGRAM RESULTS:

**CRASHPC
(DAMAGE ONLY ALGORITHM)**

**CRASHPC
(BARRIER OPTION--CASE VEHICLE AND VEHICLE #2)**

**EDCRASH
(DAMAGE ONLY ALGORITHM)**

TRC VECTOR ANALYSIS ITERATIONS

CRASHPC
(DAMAGE ONLY ALGORITHM)



U.S. Department of Transportation
National Highway Traffic Safety
Administration

CRASHPC PROGRAM SUMMARY

(All Measurements in Metric)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Identifying Title

10
Primary
Sampling Unit

9508
Case No.-Stratum

01
Accident Event
Sequence No.

Date (Month, day, year) of Run

CRASHPC Vehicle Identification

Vehicle 1

95

Plymouth

VOYAGER

1

Vehicle 2

85

Chevrolet

Suburban

2

Year

Make

Model

NASS
Veh. No.

GENERAL INFORMATION

VEHICLE 1

Size

5

Weight

1624 + 145 + _____ = 1769 kg
Curb Occupant(s) Cargo

CDC

01FDEW2

PDOF (-180 to +180)

25°

Stiffness

7

VEHICLE 2

Size

6

Weight

1955 + 70 + _____ = 2725 kg
Curb Occupant(s) Cargo

CDC

12FDEW2

PDOF (-180 to +180)

10°

Stiffness

8

SCENE INFORMATION

Rest and Impact Positions ☐ No, Go To Damage Information ☒ Yes

VEHICLE 1

Rest
Position

X _____ 4.5 m
Y _____ 23.5 m
PSI _____ 86°

Impact
Position

X _____ 6.0 m
Y _____ 5.7 m
PSI _____ 128°

Slip Angle(-180 to +180)

-112°

VEHICLE 2

Rest
Position

X _____ 1 m
Y _____ 9.5 m
PSI _____ 136°

Impact
Position

X _____ 4.9 m
Y _____ 5 m
PSI _____ 92°

Slip Angle (-180 to +180)

_____°

VEHICLE MOTION

Sustained Contact ☒ No ☐ Yes

VEHICLE 1

Vehicle Rotation

☐ No ☒ Yes

Rotation Stop Before Rest

☒ No ☐ Yes

End of Rotation
Position

X _____ m
Y _____ m
PSI _____°

Curved Path

☒ No ☐ Yes

Point on Path

X _____ m Y _____ m

Rotation Direction

☐ None ☐ CW ☒ CCW

Rotation >360°

☒ No ☐ Yes

VEHICLE 2

Vehicle Rotation

☐ No ☒ Yes

Rotation Stop Before Rest

☒ No ☐ Yes

End of Rotation
Position

X _____ m
Y _____ m
PSI _____°

Curved Path

☒ No ☐ Yes

Point on Path

X _____ m Y _____ m

Rotation Direction

☐ None ☒ CW ☐ CCW

Rotation >360°

☒ No ☐ Yes

FRICTION INFORMATION

Coefficient of Friction

. 45

Rolling Resistance Option

2

Vehicle 1 Rolling Resistance

LF

2

RF

1

LR

01

RR

01

Vehicle 2 Rolling Resistance

LF

1

RF

01

LR

2

RR

2

TRAJECTORY INFORMATION

Trajectory Data ☐ No ☒ Yes

If No, Go To Damage Information

Vehicle 1 Steer Angles

LF

-20°

RF

-20°

LR

00°

RR

00°

Vehicle 2 Steer Angles

LF

15°

RF

15°

LR

00°

RR

00°Terrain Boundary ☒ No ☐ Yes

First Point

X

_____ m

Y

_____ m

Second Point

X

_____ m

Y

_____ m

Secondary Coefficient of Friction

DAMAGE INFORMATION

VEHICLE 1

Damage Length

L

154 cm

Crush Depths

C₁2 cmC₂1 cmC₃10 cmC₄13 cmC₅19 cmC₆30 cm

Damage Offset

D

⊕ 25 cm

VEHICLE 2

Damage Length

L

187 cm

Crush Depths

C₁37 cmC₂34 cmC₃26 cmC₄10 cmC₅1 cmC₆0 cm

Damage Offset

D

⊖ 26 cm

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE NOT IN TRANSPORT, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

SUMMARY OF CRASHPC RESULTS USING DAMAGE

Special Crash Investigations Case TRC/IU 95-08

SPEED CHANGE (DAMAGE)

VEHICLE #1

TOTAL 29 KPH (18 MPH)
 LONGITUDINAL -26 KPH (-16 MPH)
 LATITUDINAL -12 KPH (-8 MPH)
 PDOF ANGLE 25 DEGREES
 ENERGY DISSIPATED = 36650 JOULES (27028 FT-LB)

VEHICLE #2

TOTAL 19 KPH (12 MPH)
 LONGITUDINAL -19 KPH (-12 MPH)
 LATITUDINAL 3 KPH (2 MPH)
 PDOF ANGLE -10 DEGREES
 ENERGY DISSIPATED = 65836 JOULES (48552 FT-LB)

DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	5	6
STIFFNESS CATEGORY	7	8
VEHICLE WEIGHT	1769 KGS (3900 LBS)	2725 KGS (6007 LBS)
CDC	01FDEW2	12FDEW2
PDOF ANGLE	25 DEGREES	-10 DEGREES
CRUSH LENGTH	154 CM. (61 IN.)	187 CM. (74 IN.)
C1	2 CM. (1 IN.)	37 CM. (15 IN.)
C2	1 CM. (0 IN.)	34 CM. (13 IN.)
C3	10 CM. (4 IN.)	26 CM. (10 IN.)
C4	13 CM. (5 IN.)	10 CM. (4 IN.)
C5	19 CM. (7 IN.)	1 CM. (0 IN.)
C6	30 CM. (12 IN.)	0 CM. (0 IN.)
D	25 CM. (10 IN.)	-26 CM. (-10 IN.)
D'	56 CM. (22 IN.)	-67 CM. (-26 IN.)

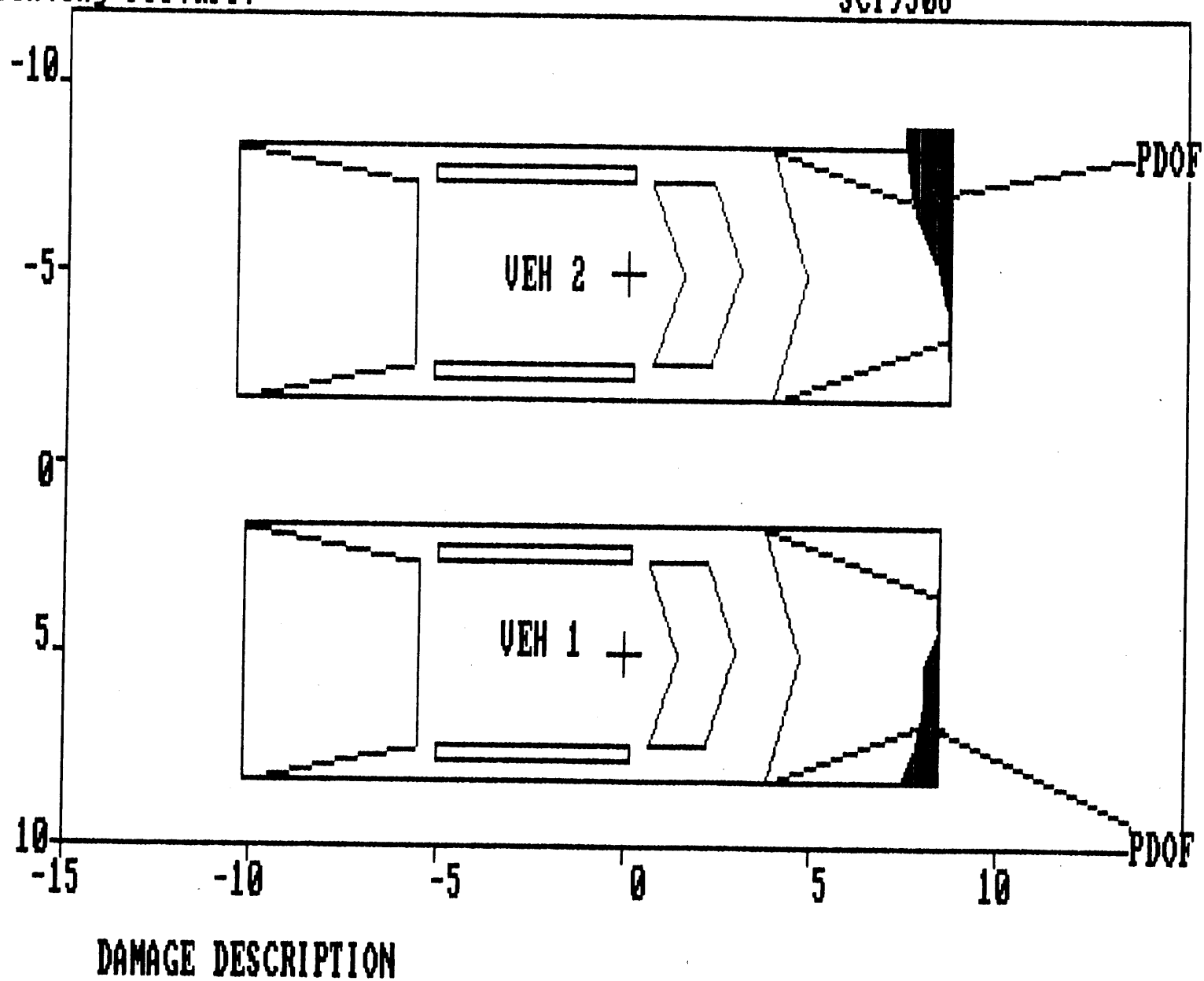
(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	142 CM. (56 IN.)	153 CM. (60 IN.)
CG TO REAR AXLE	160 CM. (63 IN.)	165 CM. (65 IN.)
TRACK	162 CM. (64 IN.)	162 CM. (64 IN.)
CG TO FRONT OF VEH	259 CM. (102 IN.)	265 CM. (104 IN.)
CG TO REAR OF VEH	-310 CM. (-122 IN.)	-318 CM. (-125 IN.)
CG TO SIDE OF VEH	101 CM. (40 IN.)	101 CM. (40 IN.)
MOMENT OF INERTIA	18583 KGS (40967 LBS)	29961 KGS (66052 LBS)
VEHICLE MASS	5 KGS (10 LBS)	7 KGS (16 LBS)

Printing Picture:

SCI9508



CRASHPC

(BARRIER OPTION--CASE VEHICLE AND VEHICLE #2)

SUMMARY OF CRASHPC RESULTS USING DAMAGE

Special Crash Investigation Case TRC/IU 95-08

SPEED CHANGE (DAMAGE)

VEHICLE #1

TOTAL 22 KPH (14 MPH)
 LONGITUDINAL -20 KPH (-12 MPH)
 LATITUDINAL -9 KPH (-6 MPH)
 PDOF ANGLE 25 DEGREES
 ENERGY DISSIPATED = 36647 JOULES (27026 FT-LB)

VEHICLE #2

TOTAL 0 KPH (0 MPH)
 LONGITUDINAL 0 KPH (0 MPH)
 LATITUDINAL 0 KPH (0 MPH)
 PDOF ANGLE 0 DEGREES
 ENERGY DISSIPATED = 0 JOULES (0 FT-LB)

DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	5	11
STIFFNESS CATEGORY	7	0
VEHICLE WEIGHT	1769 KGS (3900 LBS)	***** KGS (2204586 LBS) *
CDC	01FDEW2	BARRIER
PDOF ANGLE	25 DEGREES	0 DEGREES *
CRUSH LENGTH	154 CM. (61 IN.)	0 CM. (0 IN.) *
C1	2 CM. (1 IN.)	0 CM. (0 IN.) *
C2	1 CM. (0 IN.)	0 CM. (0 IN.) *
C3	10 CM. (4 IN.)	0 CM. (0 IN.) *
C4	13 CM. (5 IN.)	0 CM. (0 IN.) *
C5	19 CM. (7 IN.)	0 CM. (0 IN.) *
C6	30 CM. (12 IN.)	0 CM. (0 IN.) *
D	25 CM. (10 IN.)	0 CM. (0 IN.) *
D'	56 CM. (22 IN.)	0 CM. (0 IN.) *

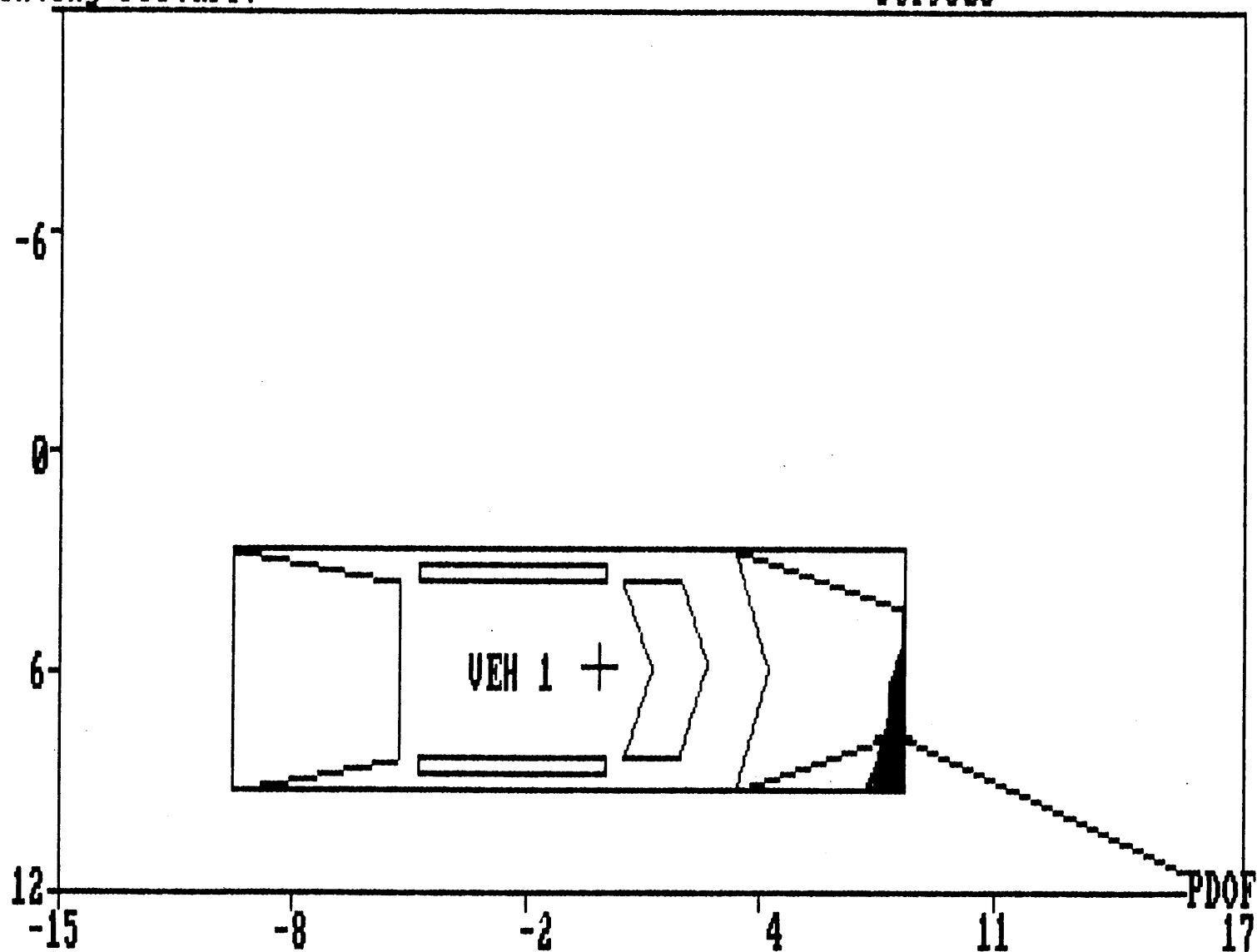
(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	142 CM. (56 IN.)	127 CM. (50 IN.)
CG TO REAR AXLE	160 CM. (63 IN.)	127 CM. (50 IN.)
TRACK	162 CM. (64 IN.)	127 CM. (50 IN.)
CG TO FRONT OF VEH	259 CM. (102 IN.)	127 CM. (50 IN.)
CG TO REAR OF VEH	-310 CM. (-122 IN.)	-127 CM. (-50 IN.)
CG TO SIDE OF VEH	101 CM. (40 IN.)	127 CM. (50 IN.)
MOMENT OF INERTIA	18582 KGS (40966 LBS)	***** KGS (***** LBS)
VEHICLE MASS	5 KGS (10 LBS)	2600 KGS (5732 LBS)

Printing Picture:

SCI9508



DAMAGE DESCRIPTION

SUMMARY OF CRASHPC RESULTS USING DAMAGE

Special Crash Investigations Case TRC/IU 95-08

	SPEED CHANGE (DAMAGE)
VEHICLE #1	
TOTAL	0 KPH (0 MPH)
LONGITUDINAL	0 KPH (0 MPH)
LATITUDINAL	0 KPH (0 MPH)
PDOF ANGLE	0 DEGREES
ENERGY DISSIPATED =	0 JOULES (0 FT-LB)
VEHICLE #2	
TOTAL	25 KPH (15 MPH)
LONGITUDINAL	-24 KPH (-15 MPH)
LATITUDINAL	4 KPH (3 MPH)
PDOF ANGLE	-10 DEGREES
ENERGY DISSIPATED =	65820 JOULES (48540 FT-LB)

DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	11	6
STIFFNESS CATEGORY	0	8
VEHICLE WEIGHT	***** KGS (2204586 LBS) *	2725 KGS (6007 LBS)
CDC	BARRIER	12FDEW2
PDOF ANGLE	0 DEGREES *	-10 DEGREES
CRUSH LENGTH	0 CM. (0 IN.) *	187 CM. (74 IN.)
C1	0 CM. (0 IN.) *	37 CM. (15 IN.)
C2	0 CM. (0 IN.) *	34 CM. (13 IN.)
C3	0 CM. (0 IN.) *	26 CM. (10 IN.)
C4	0 CM. (0 IN.) *	10 CM. (4 IN.)
C5	0 CM. (0 IN.) *	1 CM. (0 IN.)
C6	0 CM. (0 IN.) *	0 CM. (0 IN.)
D	0 CM. (0 IN.) *	-26 CM. (-10 IN.)
D'	0 CM. (0 IN.) *	-67 CM. (-26 IN.)

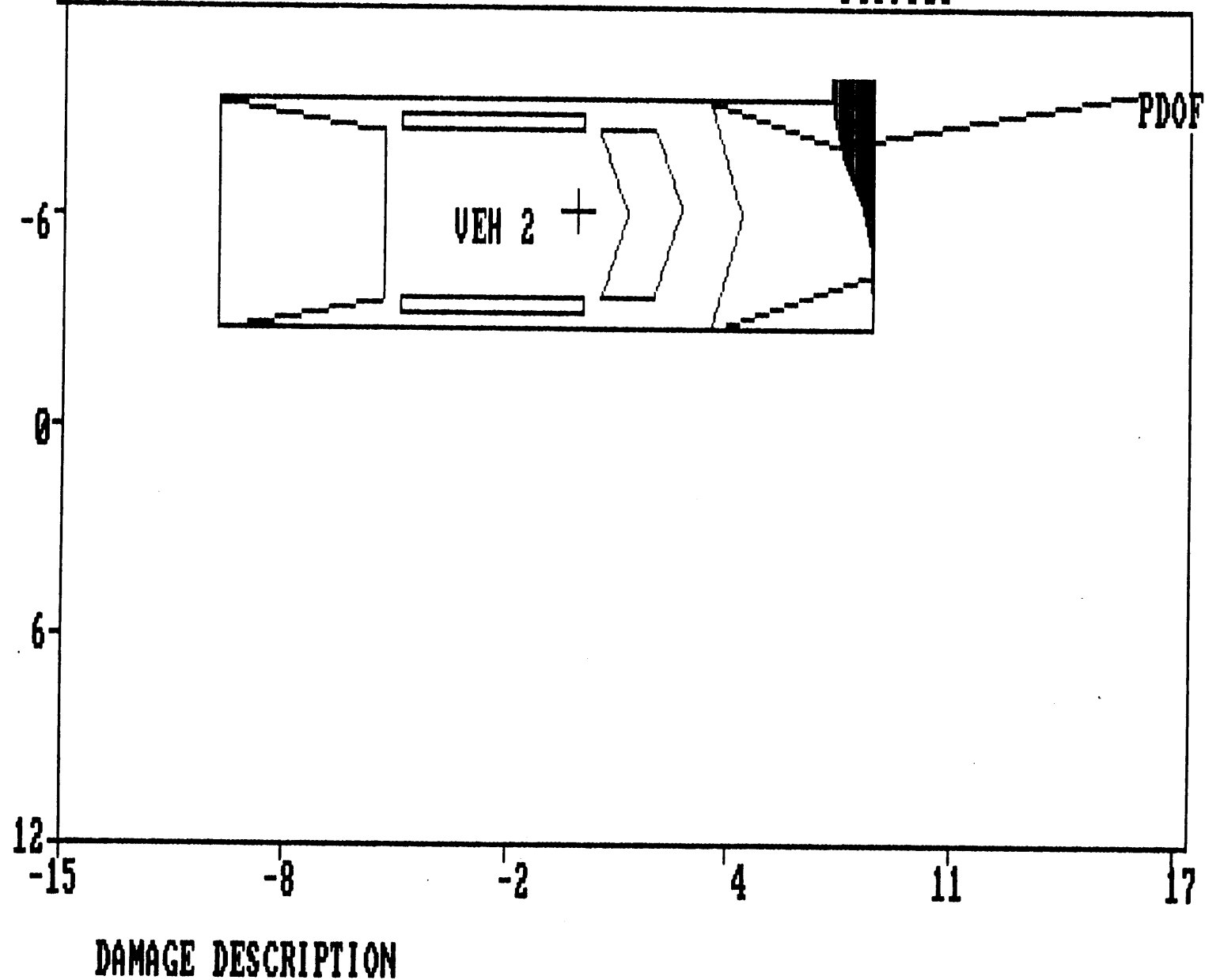
(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	127 CM. (50 IN.)	153 CM. (60 IN.)
CG TO REAR AXLE	127 CM. (50 IN.)	165 CM. (65 IN.)
TRACK	127 CM. (50 IN.)	162 CM. (64 IN.)
CG TO FRONT OF VEH	127 CM. (50 IN.)	265 CM. (104 IN.)
CG TO REAR OF VEH	-127 CM. (-50 IN.)	-318 CM. (-125 IN.)
CG TO SIDE OF VEH	127 CM. (50 IN.)	101 CM. (40 IN.)
MOMENT OF INERTIA	***** KGS (***** LBS)	29964 KGS (66057 LBS)
VEHICLE MASS	2600 KGS (5732 LBS)	7 KGS (16 LBS)

Printing Picture:

SCI9508



EDCRASH
(DAMAGE ONLY ALGORITHM)

MESSAGES:

VEHICLE # 1

VEHICLE # 2

IMPACT SPEED km/h		SPEED CHANGE km/h			BASIS FOR RESULTS
FWD	LAT	TOTAL	LONG.	LATERAL	
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND DAMAGE
		17.0	-16.7	-3.0	DAMAGE DATA ONLY

SUMMARY OF DAMAGE DATA
(NOTE: '***' indicates default value)

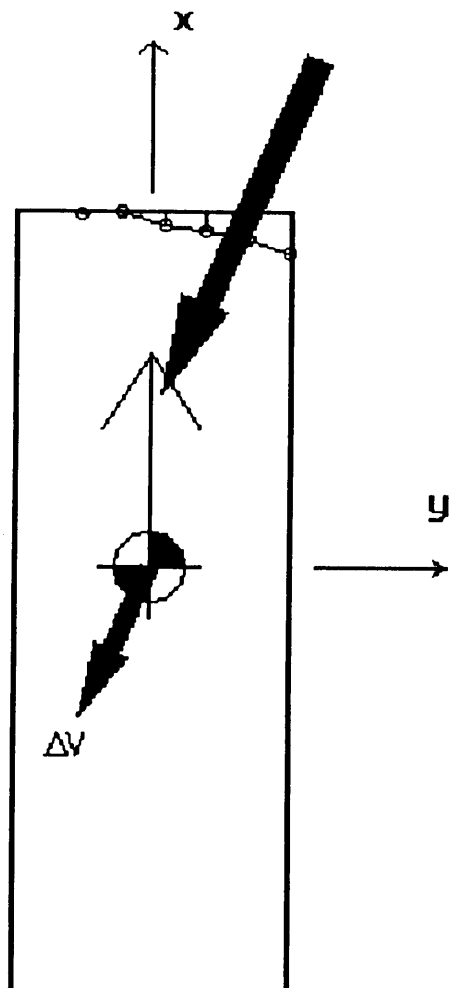
	Vehicle #1	Vehicle #2
CLASS / STIFFNESS CATEGORIES	5 / 7	6 / 8
WEIGHT	1768.0 kg	2725.0 kg
CDC	01FDEW2	12FYEW2
DAMAGE WIDTH	154.0 cm	187.0 cm
CRUSH DEPTH 1	1.5 cm	37.0 cm
CRUSH DEPTH 2	0.5 cm	34.0 cm
CRUSH DEPTH 3	10.0 cm	26.0 cm
CRUSH DEPTH 4	13.0 cm	9.5 cm
CRUSH DEPTH 5	19.0 cm	0.5 cm
CRUSH DEPTH 6	30.0 cm	0.0 cm
DAMAGE MIDPOINT OFFSET	25.0 cm	-26.0 cm
DAMAGE ENERGY	39160.2 Joules	57024.5 Joules
MAGNITUDE OF PRINCIPAL FORCE	309824.8 N	316318.1 N
DIRECTION OF PRINCIPAL FORCE	25.0 deg	10.0 deg
MOMENT ARM OF PRINCIPAL FORCE	-45.7 cm	-117.0 cm
DAMAGE CENTROID	65.6 cm	-74.8 cm

DIMENSIONAL, INERTIAL AND CRUSH STIFFNESS PROPERTIES
(NOTE: '***' indicates default value)

	Vehicle #1		Vehicle #2	
CG TO FRONT AXLE	147.6 cm	**	152.7 cm	**
CG TO REAR AXLE	160.0 cm	**	165.4 cm	**
TRACKWIDTH	161.8 cm	**	161.5 cm	**
YAW MOMENT OF INERTIA	4604.7 kg-m ²	**	7429.1 kg-m ²	**
MASS	1765.1 kg		2720.5 kg	
BODY LENGTH FROM CG TO FRONT	258.6 cm	**	264.7 cm	**
BODY LENGTH FROM CG TO REAR	-309.6 cm	**	-318.0 cm	**
BODY OVERALL WIDTH	202.7 cm	**	202.7 cm	**

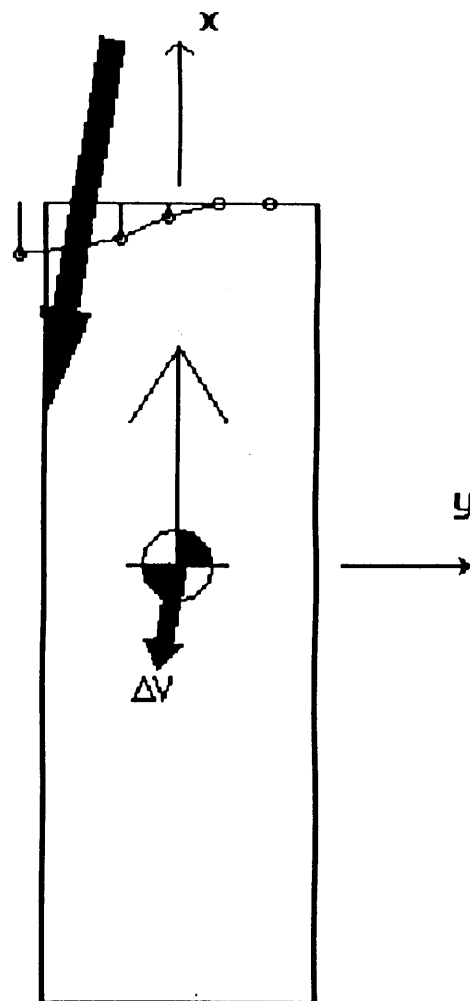
CRUSH STIFFNESSES:	A	B	A	B
	lb/in	lb/in ²	lb/in	lb/in ²
ZONE 1	407.9	138.1	366.0	84.0
ZONE 2	407.9	138.1	366.0	84.0
ZONE 3	407.9	138.1	366.0	84.0
ZONE 4	407.9	138.1	366.0	84.0
ZONE 5	407.9	138.1	366.0	84.0

Vehicle No. 1



CDC/PDOF: 01FDEW2 25.0 deg
Max Impact Force: 309825 N

Vehicle No. 2

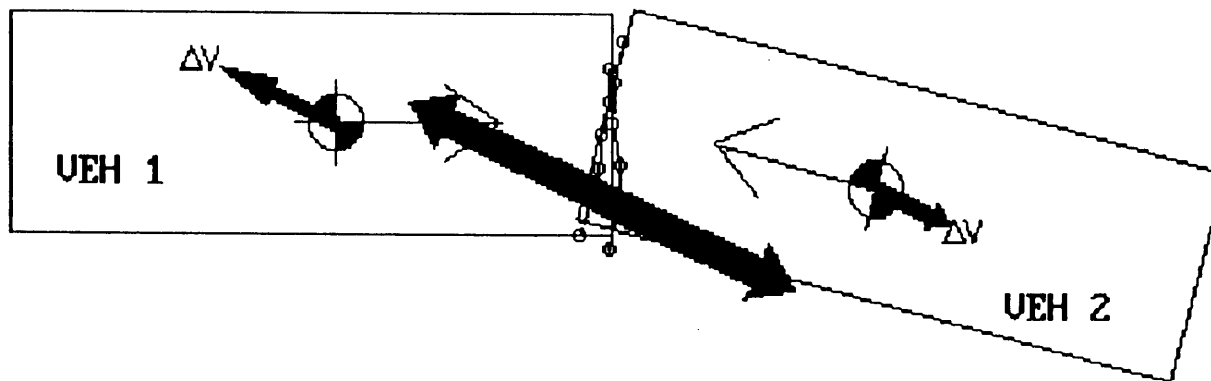


CDC/PDOF: 12FYEW2 10.0 deg
Max Impact Force: 316318 N



EDCRASH
Damage Profiles

	Ueh #1	Ueh #2
Delta-U (km/h):		
X	-23.8	-16.7
Y	-11.1	-3.0
Tot	26.2	17.0
Crush Data (cm):		
W	154.0	187.0
D	25.0	-26.0
C1	1.5	37.0
C2	0.5	34.0
C3	10.0	26.0
C4	13.0	9.5
C5	19.0	0.5
C6	30.0	0.0



EDCRASH
At Impact

	Veh #1	Veh #2
Delta-U (km/h)		
(BASIS: Damage)		
X	-23.8	-16.7
Y	-11.1	-3.0
Tot	26.2	17.0
PDOF	25.0	10.0

UNITS: km/h,m,deg

(NO SCENE DATA)

TRC VECTOR ANALYSIS ITERATIONS

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	10 16	24 15		
Momentum	28304	48600		
PDOF (Degrees)	25	-14		
PDOF (Clock Direction)	1	12		
Theoretical Delta V	20.2	17.6		
Theoretical Common Vel.		8.4	Post-Crash CG Heading	117

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	15 24	24 15		
Momentum	42456	48600		
PDOF (Degrees)	21	-18		
PDOF (Clock Direction)	1	11		
Theoretical Delta V	24.1	21.1		
Theoretical Common Vel.		8.2	Post-Crash CG Heading	143

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	10 16	32 20		
Momentum	28304	64800		
PDOF (Degrees)	27	-12	████████ 91	STM
PDOF (Clock Direction)	1	12		
Theoretical Delta V	24.3	21.2		
Theoretical Common Vel.		12.2	Post-Crash CG Heading	106

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	15 24	32 20		
Momentum	42456	64800		
PDOF (Degrees)	24	-15	████████ 91	STM
PDOF (Clock Direction)	1	12		
Theoretical Delta V	28.2	24.6		
Theoretical Common Vel.		10.9	Post-Crash CG Heading	123

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	10 <u>16</u>	<u>40</u> 25		
Momentum	28304	81000		
PDOF (Degrees)	29	-10	91	STM
PDOF (Clock Direction)	1	12		
Theoretical Delta V	28.5	24.9		
Theoretical Common Vel.		16.2	Post-Crash CG Heading	100

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 95-08

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	224	83		
CG Heading Angle	224	83		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1624	1955		
Weight-Passenger(s)	145	70		
Weight-Total	1769	2025		
Estimated Speed	15 <u>24</u>	<u>40</u> 25		
Momentum	42456	81000		
PDOF (Degrees)	26	-13	91	STM
PDOF (Clock Direction)	1	12		
Theoretical Delta V	32.3	28.2		
Theoretical Common Vel.		14.5	Post-Crash CG Heading	112

TRC VECTOR ANALYSIS PROGRAM

PDOF (Direction of Principal Force) is assigned based on the vehicular crush. Heading Angles are assigned based on scene evidence and Police Accident Reported crash configurations. This program was created to enable researchers in the NASS CDS to assess the compatibility of their assigned vehicle PDOFs and heading angles. When two vehicles are involved in an impact, researchers were often times submitting PDOFs that were not compatible with their heading angle assignments, indicating a lack of understanding of basic vector analysis concepts. Subsequently, the TRC has used this program to help verify our field PDOF assignments by making logical changes in the reconstructed crash configuration and determining the affect these changes have on PDOF.

Principal: This program is based on the geometric triangle rule (i.e., the sum of the three angles of a triangle must equal 180 degrees). The direction of one vehicle's (e.g., the case vehicle or Vehicle #1) CG (i.e., Center of Gravity) forms one side of the triangle. The direction of the other vehicle's (e.g., Vehicle #2) CG forms a second side of the triangle. The third side of the triangle is then formed by each vehicle's respective PDOF because the forces are assumed to act collinear.

Assumptions: It is assumed that each vehicle's weight can be represented by a *"point-mass"*. It is assumed that the vector force acting on each vehicle goes through the center of gravity (i.e., CG) of the vehicle. Further, it is assumed that the vehicles move off together joined as one object. This program does not take into affect the mass reduction that occurs in other reconstruction programs since its primary purpose is to check the compatibility of the field determined PDOF and Heading Angle.

Inputs: Heading Angle, Slip Angle (*"Yaw"*), Weights (Curb Weight, Cargo Weight, and Weight of all occupants), and Speed

Outputs: This program's primary output is each vehicle's theoretical PDOF, presented in both degrees and CDC clock directions. Other outputs include a theoretical Delta V and a theoretical Common Velocity. The theoretical Delta V shows the maximum Delta V for the given speeds and weights assuming a dead center impact. For special crash investigation purposes, the last two outputs should be essentially ignored.

Use: The TRC uses this program on nonaxial collisions involving two vehicles to vary the *"less established inputs"* in order to determine what theoretical affect these changes have on our field observed PDOFs. The most solid input is the weights of the respective vehicles. Even though the cargo weight is rarely accurately known, its order of magnitude is such that in the vast majority of crashes its affect is minor. The next solid inputs are the vehicle's heading angle and slip angle. In most cases these are fairly well known from the available physical evidence. The least solid input is the vehicle's speed. The submitted iterations show the inputs and what variations to those inputs that the TRC took into consideration. The PDOF outcomes are then compared with our field observed PDOF and adjustments are made, if necessary, in our final coding.

Purpose: This program is but one more tool in the hands of a researcher aimed at providing the best data.

Appendix C:

NASS CDS ACCIDENT FORM



ACCIDENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted

02

4. Date of Accident
(Month, Day, Year)

09/05

5. Time of Accident

1830

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. SS15 Administrative Use

0

7. SS16 Pedestrian Crash Data Study
(Data for this special study available
in a separate file.)

0

8. SS17 Impact Fires

0

9. SS18 Unsafe Driver Actions

0

10. SS19

0

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident

01

Code the number of events which occurred
in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
--------------------------------------	-------------------	---------------------	------------------------------	------------------------------------------	---------------------	------------------------------

12. <u>01</u>	13. <u>01</u>	14. <u>20</u>	15. <u>F</u>	16. <u>02</u>	17. <u>16</u>	18. <u>F</u>
---------------	---------------	---------------	--------------	---------------	---------------	--------------

19. <u>02</u>	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____
---------------	-----------	-----------	-----------	-----------	-----------	-----------

26. <u>03</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____
---------------	-----------	-----------	-----------	-----------	-----------	-----------

33. <u>04</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
---------------	-----------	-----------	-----------	-----------	-----------	-----------

40. <u>05</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____
---------------	-----------	-----------	-----------	-----------	-----------	-----------

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

CODES FOR CLASS OF VEHICLE

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(00) Not a motor vehicle</p> <p>(01) Subcompact/mini (wheelbase < 254 cm)</p> <p>(02) Compact (wheelbase ≥ 254 but < 265 cm)</p> <p>(03) Intermediate (wheelbase ≥ 265 but < 278 cm)</p> <p>(04) Full size (wheelbase ≥ 278 but < 291 cm)</p> <p>(05) Largest (wheelbase ≥ 291 cm)</p> <p>(09) Unknown passenger car size</p> <p>(14) Compact utility vehicle</p> <p>(15) Large utility vehicle (≤ 4,500 kgs GVWR)</p> <p>(16) Utility station wagon (≤ 4,500 kgs GVWR)</p> <p>(19) Unknown utility type</p> <p>(20) Minivan (≤ 4,500 kgs GVWR)</p> <p>(21) Large van (≤ 4,500 kgs GVWR)</p> <p>(24) Van Based school bus (≤ 4,500 kgs GVWR)</p> <p>(28) Other van type (≤ 4,500 kgs GVWR)</p> <p>(29) Unknown van type (≤ 4,500 kgs GVWR)</p> <p>(30) Compact pickup truck (≤ 4,500 kgs GVWR)</p> | <p>(31) Large pickup truck (≤ 4,500 kgs GVWR)</p> <p>(38) Other pickup truck (≤ 4,500 kgs GVWR)</p> <p>(39) Unknown pickup truck type (≤ 4,500 kgs GVWR)</p> <p>(45) Other light truck (≤ 4,500 kgs GVWR)</p> <p>(48) Unknown light truck type (≤ 4,500 kgs GVWR)</p> <p>(49) Unknown light vehicle type</p> <p>(50) School bus (excludes van based)(> 4,500 kgs GVWR)</p> <p>(58) Other bus (> 4,500 kgs GVWR)</p> <p>(59) Unknown bus type</p> <p>(60) Truck (> 4,500 kgs GVWR)</p> <p>(67) Tractor without trailer</p> <p>(68) Tractor-trailer(s)</p> <p>(78) Unknown medium/heavy truck type</p> <p>(79) Unknown light/medium/heavy truck type</p> <p>(80) Motored cycle</p> <p>(90) Other vehicle</p> <p>(99) Unknown</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

CODES FOR GENERAL AREA OF DAMAGE (GAD)

- | | | | |
|--------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| <p>CDS APPLICABLE
AND OTHER
VEHICLES</p> | <p>(O) Not a motor vehicle</p> <p>(N) Noncollision</p> <p>(F) Front</p> | <p>(R) Right side</p> <p>(L) Left side</p> <p>(B) Back</p> | <p>(T) Top</p> <p>(U) Undercarriage</p> <p>(9) Unknown</p> |
|--------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
-
- | | | | |
|----------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <p>TDC
APPLICABLE
VEHICLES</p> | <p>(O) Not a motor vehicle</p> <p>(N) Noncollision</p> <p>(F) Front</p> <p>(R) Right side</p> | <p>(L) Left side</p> <p>(B) Back of unit with cargo area
(rear of trailer or straight truck)</p> <p>(D) Back (rear of tractor)</p> | <p>(C) Rear of cab</p> <p>(V) Front of cargo area</p> <p>(T) Top</p> <p>(U) Undercarriage</p> <p>(9) Unknown</p> |
|----------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(01-30) — Vehicle Number</p> <p>Noncollision</p> <p>(31) Overturn — rollover (excludes end-over-end)</p> <p>(32) Rollover — end-over-end</p> <p>(33) Fire or explosion</p> <p>(34) Jackknife</p> <p>(35) Other intraunit damage (specify): _____</p> <p>(36) Noncollision injury</p> <p>(38) Other noncollision (specify): _____</p> <p>(39) Noncollision — details unknown</p> <p>Collision With Fixed Object</p> <p>(41) Tree (≤ 10 cm in diameter)</p> <p>(42) Tree (> 10 cm in diameter)</p> <p>(43) Shrubbery or bush</p> <p>(44) Embankment</p> <p>(45) Breakaway pole or post (any diameter)</p> <p>Nonbreakaway Pole or Post</p> <p>(50) Pole or post (≤ 10 cm in diameter)</p> <p>(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)</p> <p>(52) Pole or post (> 30 cm in diameter)</p> <p>(53) Pole or post (diameter unknown)</p> <p>(54) Concrete traffic barrier</p> <p>(55) Impact attenuator</p> <p>(56) Other traffic barrier (includes guardrail)
(specify): _____</p> | <p>(57) Fence</p> <p>(58) Wall</p> <p>(59) Building</p> <p>(60) Ditch or culvert</p> <p>(61) Ground</p> <p>(62) Fire hydrant</p> <p>(63) Curb</p> <p>(64) Bridge</p> <p>(68) Other fixed object (specify): _____</p> <p>(69) Unknown fixed object</p> <p>Collision with Nonfixed Object</p> <p>(70) Passenger car, light truck, van, or other vehicle not in-transport</p> <p>(71) Medium/heavy truck or bus not in-transport</p> <p>(72) Pedestrian</p> <p>(73) Cyclist or cycle</p> <p>(74) Other nonmotorist or conveyance</p> <p>(75) Vehicle occupant</p> <p>(76) Animal</p> <p>(77) Train</p> <p>(78) Trailer, disconnected in transport</p> <p>(79) Object fell from vehicle in-transport</p> <p>(88) Other nonfixed object (specify): _____</p> <p>(89) Unknown nonfixed object</p> <p>(98) Other event (specify): _____</p> <p>(99) Unknown event or object</p> |
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Appendix D:

NASS CDS VEHICLE FORMS: CASE VEHICLE



GENERAL VEHICLE FORM

<p>1. Primary Sampling Unit Number <u>10</u></p> <p>2. Case Number - Stratum <u>9508</u></p> <p>3. Vehicle Number <u>01</u></p> <p style="text-align: center;">VEHICLE IDENTIFICATION</p> <p>4. Vehicle Model Year <u>95</u> Code the last two digits of the model year (99) Unknown</p> <p>5. Vehicle Make (specify): <u>Plymouth</u> <u>09</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (99) Unknown</p> <p>6. Vehicle Model (specify): <u>GRAND VOYAGER SE</u> <u>442</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (999) Unknown</p> <p>7. Body Type <u>20</u> Note: Applicable codes may be found on the back of this page.</p> <p>8. Vehicle Identification Number <u>1P4GH44R1SX</u> <small>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17</small> Left justify; Slash zeros and letter Z (0 and-Z) No VIN—Code all zeros Unknown—Code all nines</p> <p>9. Vehicle Special Use (This Trip) <u>0</u> (0) No special use (1) Taxi (2) Vehicle used as school bus (3) Vehicle used as other bus (4) Military (5) Police (6) Ambulance (7) Fire truck or car (8) Other (specify): _____ (9) Unknown</p> <p style="text-align: center;">OFFICIAL RECORDS</p> <p>10. Police Reported Vehicle Disposition <u>1</u> (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown</p> <p>11. Police Reported Travel Speed <u>999</u> Code to the nearest kmph (NOTE: 000 means less than 0.5 kmph) (160) 159.5 kmph and above (999) Unknown _____ mph X 1.6093 = _____ kmph</p>	<p>12. Speed Limit <u>048</u> (000) No statutory limit Code posted or statutory speed limit in kmph (999) Unknown <u>30</u> mph X 1.6093 = <u>48</u> kmph</p> <p>13. Police Reported Alcohol Presence For Driver <u>0</u> (0) No alcohol present (1) Yes alcohol present (7) Not reported (8) No driver present (9) Unknown</p> <p>14. Alcohol Test Result For Driver <u>96</u> Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown Source: _____</p> <p>15. Police Reported Other Drug Presence For Driver <u>0</u> (0) No other drug(s) present (1) Yes other drug(s) present (7) Not reported (8) No driver present (9) Unknown</p> <p>16. Other Drug Specimen Test Result For Driver <u>0</u> (0) No specimen test given (1) Drug(s) not found in specimen (2) Drug(s) found in specimen, (specify): (3) Specimen test given, results unknown or not obtained (8) No driver present (9) Unknown if specimen test given</p> <p>17. Driver's Zip Code <u>[REDACTED]</u> (00001) Driver not a resident of U.S. or territories Code actual 5-digit zip code (99998) No driver present (99999) Unknown</p> <p>18. Driver's Race/Ethnic Origin <u>1</u> (1) White (non-Hispanic) (2) Black (non-Hispanic) (3) White (Hispanic) (4) Black (Hispanic) (5) American Indian, Eskimo or Aleut (6) Asian or Pacific Islander (7) Other (specify): _____ (8) No driver present (9) Unknown</p>
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CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup (foreign), Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction 2
 (0) Non-interchange area and non-junction
 (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
 (3) Driveway, alley access related
 (4) Other junction (specify) _____

(5) _____
 Unknown type of junction

(9) Unknown

20. Trafficway Flow 1
 (0) Not physically divided (two way traffic)
 (1) Divided trafficway-median strip without positive barrier
 (2) Divided trafficway-median strip with positive barrier
 (3) One way traffic
 (9) Unknown

21. Number Of Travel Lanes 3

- (1) One
 (2) Two
 (3) Three
 (4) Four
 (5) Five
 (6) Six
 (7) Seven or more
 (9) Unknown

22. Roadway Alignment 1

- (1) Straight
 (2) Curve right
 (3) Curve left
 (9) Unknown

23. Roadway Profile 1

- (1) Level
 (2) Uphill grade (> 2%)
 (3) Hill crest
 (4) Downhill grade (> 2%)
 (5) Sag
 (9) Unknown

24. Roadway Surface Type 1

- (1) Concrete
 (2) Bituminous (asphalt)
 (3) Brick or block
 (4) Slag, gravel, or stone
 (5) Dirt
 (8) Other (specify): _____
 (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry
 (2) Wet
 (3) Snow or slush
 (4) Ice
 (5) Sand, dirt, or oil
 (8) Other (specify): _____
 (9) Unknown

26. Light Conditions 3

- (1) Daylight
 (2) Dark
 (3) Dark, but lighted
 (4) Dawn
 (5) Dusk
 (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions
 (1) Rain
 (2) Sleet/hail
 (3) Snow
 (4) Fog
 (5) Rain and fog
 (6) Sleet and fog
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
 (9) Unknown

28. Traffic Control Device 2

- (0) No traffic control(s)
 (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign
 (3) Yield sign
 (4) School zone sign
 (5) Other regulatory sign (specify): _____

- (6) Warning sign (not RR crossing)
 (7) Unknown sign
 (8) Miscellaneous/other controls including RR controls (specify): _____

(9) Unknown

29. Traffic Control Device Functioning 2

- (0) No traffic control device
 (1) Traffic control device not functioning (specify): _____
 (2) Traffic control device functioning properly
 (9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving 01
 (Prior To Recognition Of Critical Event)
 (00) No driver present
 (01) Attentive or not distracted
 (02) Looked but did not see
- Distractions*
 (03) By other occupant(s), (specify): _____
 (04) By moving object in vehicle (specify): _____
 (05) While talking or listening to cellular phone
 (specify location and type of phone): _____
 (06) While dialing cellular phone (specify location
 and type of phone): _____
 (07) While adjusting climate controls
 (08) While adjusting radio, cassette, CD (specify): _____
 (09) While using other device/object in vehicle
 (specify): _____
 (10) Sleepy or fell asleep
 (11) Distracted by outside person, object, or event
 (specify): _____
 (12) Eating or drinking
 (13) Smoking related
 (97) Distracted/inattentive, details unknown
 (98) Other, distraction (specify): _____
 (99) Unknown
31. Pre-Event Movement (Prior to
 Recognition of Critical Event) 11
 (00) No driver present
 (01) Going straight
 (02) Decelerating in traffic lane
 (03) Accelerating in traffic lane
 (04) Starting in traffic lane
 (05) Stopped in traffic lane
 (06) Passing or overtaking another vehicle
 (07) Disabled or parked in travel lane
 (08) Leaving a parking position
 (09) Entering a parking position
 (10) Turning right
 (11) Turning left
 (12) Making a U-turn
 (13) Backing up (other than for parking position)
 (14) Negotiating a curve
 (15) Changing lanes
 (16) Merging
 (17) Successful avoidance maneuver to a previous
 critical event
 (97) Other (specify): _____
 (99) Unknown
32. Critical Precrash Event 63
This Vehicle Loss of Control Due To:
 (01) Blow out or flat tire
 (02) Stalled engine
 (03) Disabling vehicle failure (e.g., wheel fell off)
 (specify): _____
 (04) Non-disabling vehicle problem (e.g., hood flew
 up) (specify): _____
 (05) Poor road conditions (puddle, pot hole, ice, etc.)
 (specify): _____
 (06) Traveling too fast for conditions
 (08) Other cause of control loss (specify): _____
 (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
 (11) Over the lane line on right side of travel lane
 (12) Off the edge of the road on the left side
 (13) Off the edge of the road on the right side
 (14) End departure
 (15) Turning left at intersection
 (16) Turning right at intersection
 (17) Crossing over (passing through) intersection
 (18) This vehicle decelerating
 (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Other vehicle stopped
 (51) Traveling in same direction with lower steady
 speed
 (52) Traveling in same direction while decelerating
 (53) Traveling in same direction with higher speed
 (54) Traveling in opposite direction
 (55) In crossover
 (56) Backing
 (59) Unknown travel direction of other motor
 vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left
 lane line
 (61) From adjacent lane (same direction)—over right
 lane line
 (62) From opposite direction—over left lane line
 (63) From opposite direction—over right lane line
 (64) From parking lane
 (65) From crossing street, turning into same
 direction
 (66) From crossing street, across path
 (67) From crossing street, turning into opposite
 direction
 (68) From crossing street, intended path not known
 (70) From driveway, turning into same direction
 (71) From driveway, across path
 (72) From driveway, turning into opposite direction
 (73) From driveway, intended path not known
 (74) From entrance to limited access highway
 (78) Encroachment by other vehicle—details
 unknown

Pedestrian, Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
 (81) Pedestrian approaching roadway
 (82) Pedestrian—unknown location
 (83) Pedalcyclist or other nonmotorist in roadway
 (specify): _____
 (84) Pedalcyclist or other nonmotorist approaching
 roadway, (specify): _____
 (85) Pedalcyclist or other nonmotorist—unknown
 location (specify): _____

Object or Animal

- (87) Animal in roadway
 (88) Animal approaching roadway
 (89) Animal—unknown location
 (90) Object in roadway
 (91) Object approaching roadway
 (92) Object—unknown location
 (98) Other critical precrash event (specify): _____
 (99) Unknown

33. Attempted Avoidance Maneuver

08

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

(99) Unknown

34. Pre-Impact Stability

1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

(9) Pre-crash stability unknown

35. Pre-Impact Location

1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type

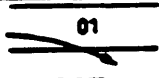
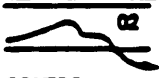

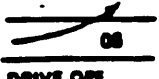

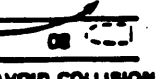
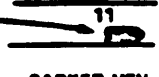
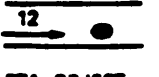
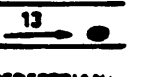
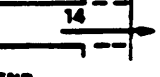
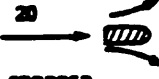
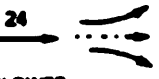
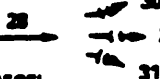

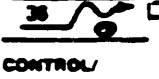

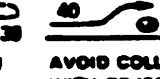
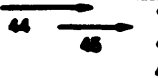

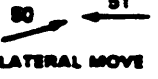
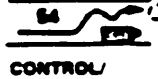
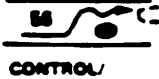




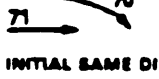

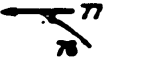




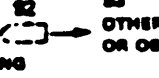
68

(Note: Applicable codes on back of this page)

- (00) No impact
Code the number of the diagram that best describes the accident circumstance
- (98) Other accident type (specify):

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH.. PED.. ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH.. PED.. ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 24 SLOWER 25, 26, 27	 28 DECEL. 29, 30, 31	(EACH - 32) SPECIFICS OTHER	(EACH - 33) SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH - 42) SPECIFICS OTHER (EACH - 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 45 46 47	 46 47	(EACH - 48) SPECIFICS OTHER	(EACH - 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	(EACH - 52) SPECIFICS OTHER	(EACH - 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH - 62) SPECIFICS OTHER (EACH - 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	(EACH - 66) SPECIFICS OTHER	(EACH - 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72	(EACH - 74) SPECIFICS OTHER	(EACH - 75) SPECIFICS UNKNOWN
	K Turn Into Path	 76 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80	(EACH - 84) SPECIFICS OTHER	(EACH - 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86	 88	(EACH - 90) SPECIFICS OTHER	(EACH - 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	93 OTHER VEH. OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
 (0) Driver not present
 (1) Driver present
 (9) Unknown
38. Number of Occupants This Vehicle 04
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown

39. Number of Occupant Forms Submitted 04

AIR BAG RELATED

40. Is this an AOPS Vehicle? 1
 (0) No (includes unknown)
 (1) Yes - researcher determined
 (2) VIN determined air bag system
 (3) VIN determined automatic (passive) belts
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 6
 (0) Not equipped or not available
 (1) No air bags deployed
Single Air Bag Vehicle
 (2) Driver air bag deployed
 (3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
 (4) Driver side only deployed
 (5) Passenger side only deployed
 (6) Driver and passenger side deployed
 (7) Driver and passenger side unknown if deployed
 (8) Air bag(s) deployed, details unknown
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0
 (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1.620
3580 Code weight to nearest 10 kilograms.
 (045) Less than 450 kilograms
 (610) 6,100 kilograms or more
 (999) Unknown
3580 lbs X .4536 = 1.624 kgs

Source: _____

44. Vehicle Cargo Weight 0.000
 Code weight to nearest 10 kilograms.
 (000) Less than 5 kilograms
 (450) 4,500 kilograms or more
 (999) Unknown
 _____ lbs X .4536 = _____ kgs

Source: _____

ROLLOVER DATA

45. Rollover 00
 (00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
 (01-16) Code the number of quarter turns
 (17) Rollover, 17 or more quarter turns (specify): _____
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 00
 (00) No rollover
 (01) Trip-over
 (02) Flip-over
 (03) Turn-over
 (04) Climb-over
 (05) Fall-over
 (06) Bounce-over
 (07) Collision with another vehicle
 (08) Other rollover initiation type specify): _____
 (98) Rollover--end-over-end
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0
 (0) No rollover
 (1) On roadway
 (2) On shoulder--paved
 (3) On shoulder--unpaved
 (4) On roadside or divided trafficway median
 (8) Rollover--end-over-end
 (9) Unknown
48. Rollover Initiation Object Contacted 00
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
 (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify): _____
 (6) Non-contact rollover forces (specify): _____
 (8) Rollover--end-over-end
 (9) Unknown
50. Direction of Initial Roll 0
 (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (8) Rollover--end-over-end
 (9) Unknown roll direction

VERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) 0
52. Rear Override/Underride (this Vehicle) 0
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride
- Override (see specific CDC)*
[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]
 (1) 1st CDC
 (2) 2nd CDC
 (3) Other not automated CDC (specify): _____
- Underride (see specific CDC)*
[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]
 (4) 1st CDC
 (5) 2nd CDC
 (6) Other not automated CDC (specify): _____
- (7) Medium/heavy truck or bus override (of any configuration)
 (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
 (997) Noncollision
 (998) Impact with object
 (999) Unknown

53. Heading Angle For This Vehicle 2 2 4
54. Heading Angle For Other Vehicle 0 8 3

RECONSTRUCTION DATA

55. Towed Trailing Unit 0
 (0) No towed unit
 (1) Yes—towed trailing unit
 (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 1
 (0) No
 (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
 (0) Not collision (for highest delta V) with tree or pole
 (1) Not damaged
 (2) Cracked/sheared
 (3) Tilted <45 degrees
 (4) Tilted ≥45 degrees
 (5) Uprooted tree
 (6) Separated pole from base
 (7) Pole replaced
 (8) Other (specify): _____
 (9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) 0 1

(00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program
 -damage only routine
 (02) Reconstruction program
 -damage and trajectory routine
 (03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
 (06) Other non-horizontal forces
 (07) Sideswipe type damage
 (08) Severe override
 (09) Yielding object
 (10) Overlapping damage
 (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): _____

(98) Other, (specify): _____

Insufficient physical evidence was present during this contractor's scene inspection. Instead, this contractor used a diagram provided by NTSB and worked backwards to develop our own impact and final rest positional information.

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

02929 Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+ 026-26 Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: __000 means greater than
 -0.5 kmph and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (_999) Unknown

61. Lateral Component of Delta V

Highest

+ 012-12 Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: __000 means greater than -0.5 kmph
 and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (_999) Unknown

62. Energy Absorption

036.70036650 Nearest 100 joules (highest)

____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
 (9997) 999,650 joules or more
 (9999) Unknown

63. Impact Speed

Highest

998

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (998) Trajectory algorithm not run
 (999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction
 (1) Collision fits model — results appear reasonable
 (2) Collision fits model — results appear high
 (3) Collision fits model — results appear low
 (4) Borderline reconstruction — results appear reasonable

1

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

02222 Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [] YES [☒] NO

IF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [] YES [] NO

ESTIMATED DELTA V

VEHICLE INSPECTION

66. Estimated Highest Delta V (Researcher Determined)

(0) Reconstruction Delta V coded

Estimated Delta V

- (1) Less than 10 kmph
- (2) ≥ 10 kmph but < 25 kmph
- (3) ≥ 25 kmph but < 40 kmph
- (4) ≥ 40 kmph but < 55 kmph
- (5) ≥ 55 kmph

Other estimates of damage severity

- (6) Minor
- (7) Moderate
- (8) Severe

(9) Unknown

0

67. Type of Vehicle Inspection

- (0) No inspection
- (1) Vehicle fully repaired-no damage evident
- (2) Partial inspection (specify):
- (3) Complete inspection

3

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>9508</u>		

VEHICLE IDENTIFICATION

VIN 1P4GH44R1SX Model Year 95
Vehicle Make (specify): PLYMOUTH Vehicle Model (specify): GRAND Voyager SE

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	(P) BC over 108cm	whole front Bumper	C-6

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>119.3</u>	inches	x	2.54	=	<u>303</u>	cm
Overall Length	<u>192.8</u>	inches	x	2.54	=	<u>490</u>	cm
Maximum Width	<u>72.0</u>	inches	x	2.54	=	<u>183</u>	cm
Curb Weight	<u>3,580</u>	pounds	x	0.4536	=	<u>1,624</u>	kg
Average Track	<u>61.</u>	inches	x	2.54	=	<u>155</u>	cm
Front Overhang	<u>33.9</u>	inches	x	2.54	=	<u>86</u>	cm
Rear Overhang	<u>39.6</u>	inches	x	2.54	=	<u>100</u>	⁵⁸ cm
Undeformed End Width	<u>60.6</u>	inches	x	2.54	=	<u>154</u>	cm
Engine Size: cyl/displ.	<u> </u>	cc	x	0.001	=	<u> </u>	L
V6	<u> </u>	CID	x	0.0164	=	<u>3.3</u>	L

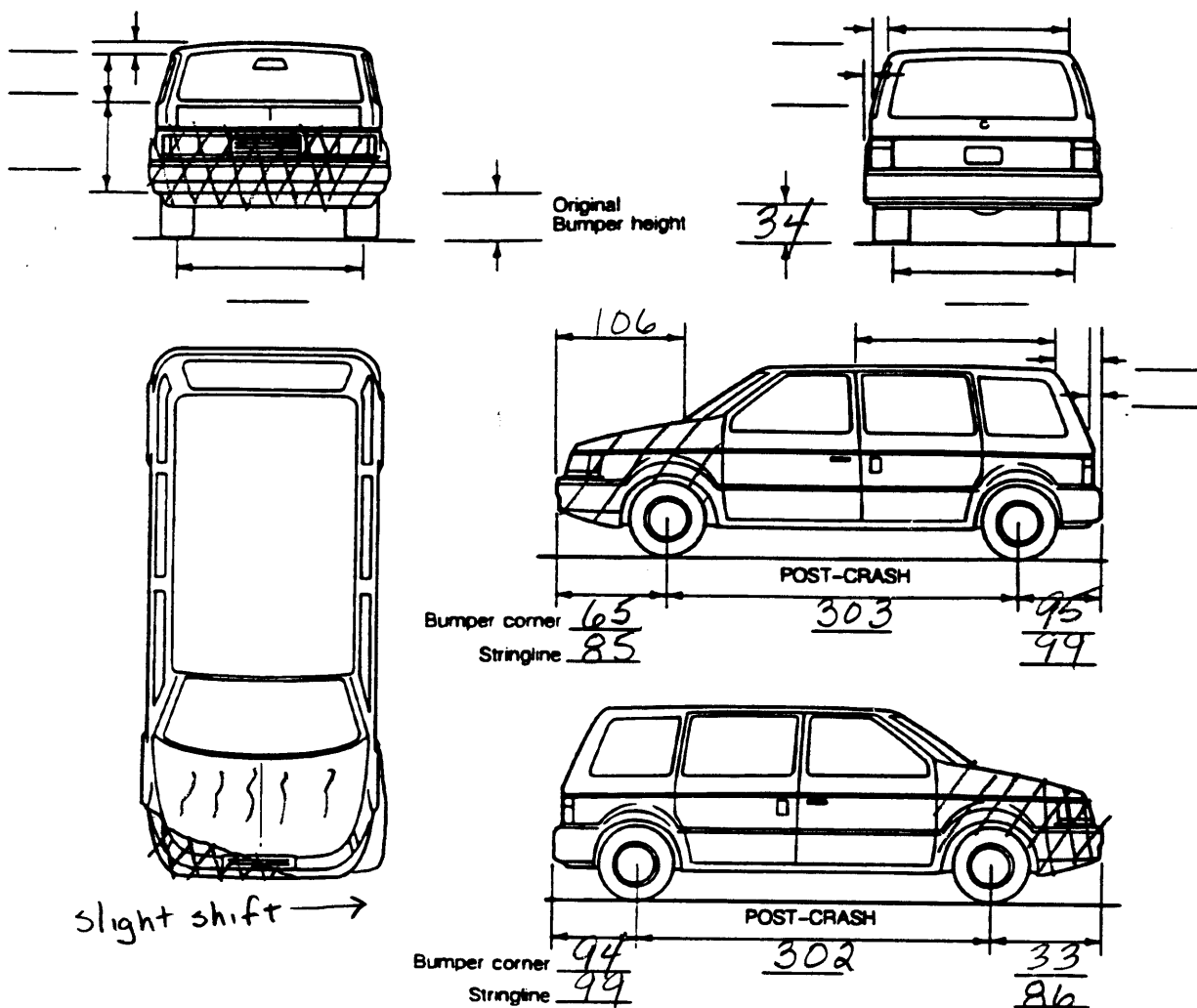
SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} <u>SE-Rallye</u>	Color: {specify} <u> </u>	Repair Cost: \$ <u> </u>
Transmission: {circle} <u>Automatic</u> Manual	Speed: 3-speed <u>4-speed</u> 5-speed Other: <u> </u>	
Steering: {circle} <u>Power-assisted</u> Manual	Type: <u>rack-and-pinion</u> worm-and-gear Other: <u> </u>	
{please describe}:		
Brakes: {circle} <u>Power-assisted</u> Manual	Type: <u>4-wheel disc</u> 4-wheel drum 4-wheel hydraulic	
	<u>front disc, rear drum</u> Other: <u>ABS</u>	
Observed Defects: {specify} <u> </u>		
Fleet Type: {circle} <u>Private vehicle</u> Rental vehicle Leased vehicle Commercial vehicle Other		
{please describe}:		

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE a. Rotation physically restricted RF <u>1</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		b. Tire deflated RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u>		ORIGINAL SPECIFICATIONS Wheelbase <u>303</u> cm Overall Length <u>490</u> cm Maximum Width <u>183</u> cm Curb Weight <u>1624</u> kg Average Track <u>155</u> cm Front Overhang <u>86</u> cm Rear Overhang <u>101</u> cm Undeformed End Width <u>154</u> cm Engine Size: cyl./displ. <u>3-3</u> <u>V6</u> L		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees	
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic				DRIVE WHEELS <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD		Approximate Cargo Weight _____ kg	

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new penmeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grooves in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CODES FOR OBJECT CONTACTED

(99) Unknown event or object

[illegible]

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>01</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>02</u>

Second Highest Delta "V"

12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	22. ±D
<u>154</u>	<u>002</u>	<u>001</u>	<u>010</u>	<u>013</u>	<u>019</u>	<u>030</u>	<u>⊕ 025</u>

Second Highest Delta "V"

23. L	24. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	25. ±D
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

26. Undeformed End Width
(Coded when highest severity impact is an end plane impact.) 154
Code to the nearest centimeter
(250) 250 centimeters or more
(998) No highest severity end plane impact
(999) Unknown

27. Direct Damage Width
(For highest severity impact) 108
Code to the nearest centimeter
(250) 250 centimeters or more
(999) Unknown

28. Original Wheelbase 303
Code to the nearest centimeter
(650) 650 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

29. Original Average Track Width 155
Code to the nearest centimeter
(185) 185 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

		FUEL SYSTEM	
30. Are CDCs Documented but Not Coded on The Automated File?	<u>0</u>	35. Location of Fuel Tank-1 Filler Cap	<u>4</u>
(0) No		36. Location of Fuel Tank-2 Filler Cap	<u>0</u>
(1) Yes		(0) No fuel tank	
		(1) On back plane	
31. Researcher's Assessment of Vehicle Disposition	<u>1</u>	(2) Aft of center of the rear wheels (rear axle) on left side plane	
(0) Not towed due to vehicle damage		(3) Aft of center of the rear wheels (rear axle) on right side plane	
(1) Towed due to vehicle damage		(4) Forward of center of the rear wheels (rear axle) on left side plane	
(9) Unknown		(5) Forward of center of the rear wheels (rear axle) on right side plane	
32. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle?	<u>0</u>	(6) Over the center of the rear wheels (rear axle) on left side plane	
(0) No post manufacturer modifications		(7) Over the center of the rear wheels (rear axle) on right side plane	
(1) Yes - post manufacturer modifications (specify): _____		(8) Other (specify): _____	
_____		(9) Unknown	
(Include photograph of CERTIFICATION PLACARD in case report)		37. Type of Fuel Tank-1	<u>1</u>
(9) Unknown if vehicle is modified		38. Type of Fuel Tank-2	<u>0</u>
		(0) No fuel tank (electrical vehicle)	
		(1) Metallic	
		(2) Non-metallic	
		(9) Unknown	
		39. Location of Fuel Tank-1	<u>4</u>
		40. Location of Fuel Tank-2	<u>0</u>
		(0) No fuel tank	
		(1) Aft of center of the rear wheels (rear axle) centered	
		(2) Aft of center of the rear wheels (rear axle) left side	
		(3) Aft of center of the rear wheels (rear axle) right side	
		(4) Forward of center of the rear wheels (rear axle) centered	
		(5) Forward of center of the rear wheels (rear axle) left side	
		(6) Forward of center of the rear wheels (rear axle) right side	
		(7) Over center of the rear wheels (rear axle)	
		(8) Other (specify): _____	
		(9) Unknown	
		41. Damage to Fuel Tank-1	<u>1</u>
		42. Damage to Fuel Tank-2	<u>0</u>
		(0) No fuel tank	
		(1) No damage to fuel tank	
		(2) Deformed, no seam failure	
		(3) Deformed, with a seam failure	
		(4) Punctured	
		(5) Lacerated (ripped)	
		(6) Abraded (scraped)	
		(7) Filler neck separation from the fuel tank	
		(8) Other damage (specify): _____	
		(9) Unknown	
FIRE OCCURRENCE			
33. Fire Occurrence	<u>0</u>		
(0) No fire			
Yes, fire occurred			
(1) Minor			
(2) Major			
(9) Unknown			
34. Origin of Fire	<u>0</u>		
(0) No fire			
(1) Vehicle exterior (front, side, back, top)			
(2) Exhaust system			
(3) Fuel tank (and other fuel retention system parts)			
(4) Engine compartment			
(5) Cargo/trunk compartment			
(6) Instrument panel			
(7) Passenger compartment area			
(8) Other location (specify): _____			
(9) Unknown			

<p>43. Leakage Location of Fuel System-1 <u>1</u></p> <p>44. Leakage Location of Fuel System-2 <u>0</u></p> <p>(0) No fuel tank (1) No fuel leakage</p> <p><i>Primary Area Of Leakage</i></p> <p>(2) Tank (3) Filler neck (4) Cap (5) Lines/pump/filter (6) Vent/emission recovery (8) Other (specify): _____ (9) Unknown</p> <p>45. Fuel Type-1 <u>0</u> <u>1</u></p> <p>46. Fuel Type-2 <u>0</u> <u>0</u></p> <p><i>Single Fuel Type</i></p> <p>(00) No fuel tank (01) Gasoline (02) Diesel (03) CNG (Compressed Natural Gas) (04) LPG (Liquid Petroleum Gas) also known as Propane (05) LNG (Liquid Natural Gas) (06) Methanol (M100 or M85) (07) Ethanol (E100 or E85) (08) Other (Hydrogen or others) (specify): _____</p> <p><i>Electric Powered or Electric/Solar Powered Vehicles</i></p> <p>(10) Lead Acid Battery (11) Nickel-Iron Battery (12) Nickel-Cadmium Battery (13) Sodium Metal Chloride Battery (14) Sodium Sulfur Battery (18) Other (Specify): _____</p> <p>(98) Other Hybrid (specify): _____</p> <p>(99) Unknown fuel type</p>	<p>47. Is This Vehicle Equipped With More Than Two Fuel Tanks? <u>0</u></p> <p>(0) No (one or two tanks only)</p> <p><i>Yes - More Than Two Tanks</i></p> <p>(1) Yes -- <u>no damage</u> to any tank or filler cap and <u>no fuel system leakage</u></p> <p>(2) Yes -- <u>no damage</u> to any tank or filler cap but <u>there is fuel system leakage</u> (specify leakage location): _____</p> <p>(3) Yes -- <u>damage</u> to an additional tank or filler cap and <u>there is fuel system leakage</u> (specify the following): Type of tank _____ Tank location _____ Filler cap location _____ Tank damage _____ Location of leakage _____ Type of fuel _____</p> <p>(9) Unknown if more than two tanks</p>
<p style="text-align: center; font-weight: bold; margin-bottom: 10px;">COMMENTS</p> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***

(GV10=0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

INTEGRITY

4. Passenger Compartment Integrity

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 0 8. RR 1 9. TG/H 1

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 \neq 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 3 17. RF 3 18. LR 3 19. RR 3
20. BL 3 21. Roof 0 22. Other 3

(0) No glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted (original)

(4) AS-2 - Tempered-with after market tint

(5) AS-3 - Tempered-tinted (with additional after market tint)

(6) AS-14 - Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2
28. BL 1 29. Roof 0 30. Other 2

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 1 35. RR 1
36. BL 1 37. Roof 0 38. Other 1

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1
44. BL 1 45. Roof 0 46. Other 1

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

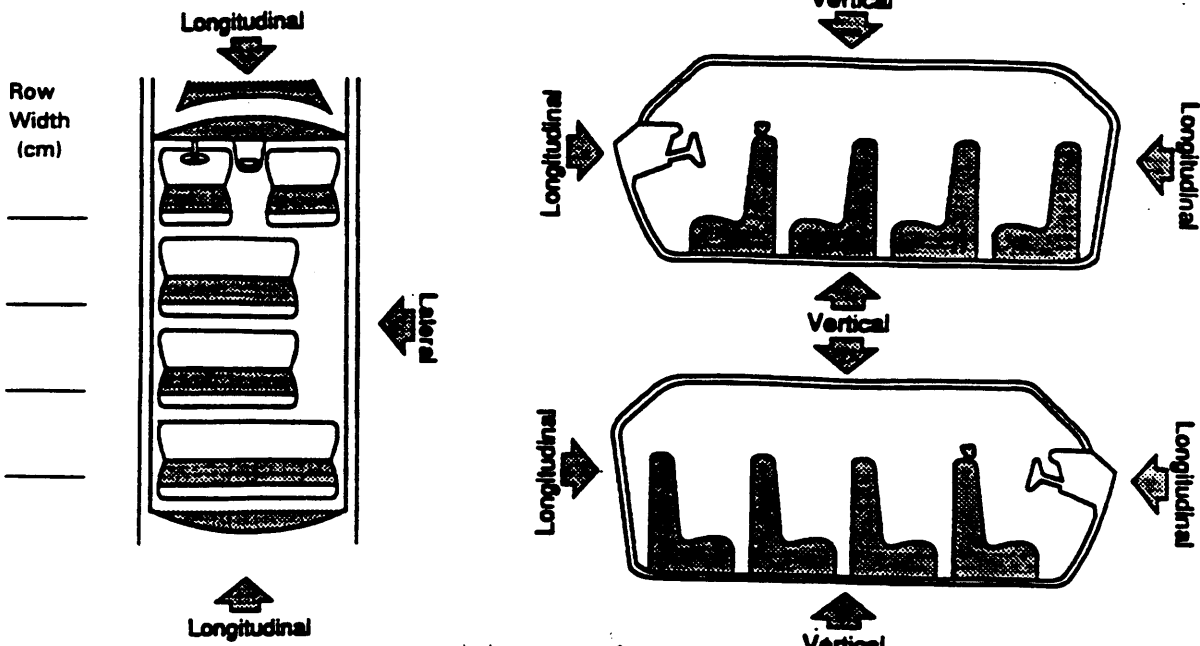
(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

INTRUSION WORKSHEET

Note: Sketch intruded areas



NO VISIBLE intrusions

LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)			INTRUSION	DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		
		-		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat
 (11) Left
 (12) Middle
 (13) Right

Second Seat
 (21) Left
 (22) Middle
 (23) Right

Third Seat
 (31) Left
 (32) Middle
 (33) Right

Fourth Seat
 (41) Left
 (42) Middle
 (43) Right

(97) Catastrophic
 (98) Other enclosed area (specify) _____

(99) Unknown

INTRUDING COMPONENT*Interior Components*

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): _____

Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

—		0	=	0
---	--	---	---	---

—			=	
---	--	--	---	--

—			=	
---	--	--	---	--

—			=	
---	--	--	---	--

STEERING COLUMN

INSTRUMENT PANEL

87. Steering Column Type 2

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify): _____

(9) Unknown

88. Tilt Steering Column Adjustment 1

- (0) No tilt steering column
 (1) Full up
 (2) Between full up and center
 (3) Center
 (4) Between center and full down
 (5) Full down
 (9) Unknown

89. Telescoping Steering Column Adjustment 0

- (0) No telescoping steering column
 (1) Full back
 (2) Between full back and midpoint
 (3) Midpoint
 (4) Between midpoint and full forward
 (5) Full forward
 (9) Unknown

90. Steering Rim/Spoke Deformation 00

- Code actual measured deformation to the nearest centimeter
 (00) No steering rim deformation
 (01-14) Actual measured value in centimeters
 (15) 15 centimeters or more
 (98) Observed deformation cannot be measured
 (99) Unknown

91. Location of Steering Rim/Spoke Deformation 00

(00) No steering rim deformation

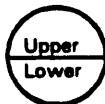
Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

92. Odometer Reading 005,000

_____ kilometers

Code to the nearest 1,000 kilometers

- (000) No odometer
 (001) Less than 1,500 kilometers
 (500) 499,500 kilometers or more
 (999) Unknown

2,250 miles X 1.6093 = 7,586.6 kilometers

Source: _____

93. Instrument Panel Damage from Occupant Contact? 0

- (0) No
 (1) Yes
 (9) Unknown

94. Type of Knee Bolster Covering 2

- (0) No knee bolster
 (1) Padded
 (2) Rigid plastic
 (8) Other (specify): _____
 (9) Unknown

95. Knee Bolsters Deformed from Occupant Contact? 1

- (0) No knee bolster
 (1) No deformation
 (2) Yes - deformation
 (9) Unknown

96. Did Glove Compartment Door Open During Collision(s)? 1

- (0) No glove compartment door
 (1) No - door did not open
 (2) Yes - door opened
 (9) Unknown

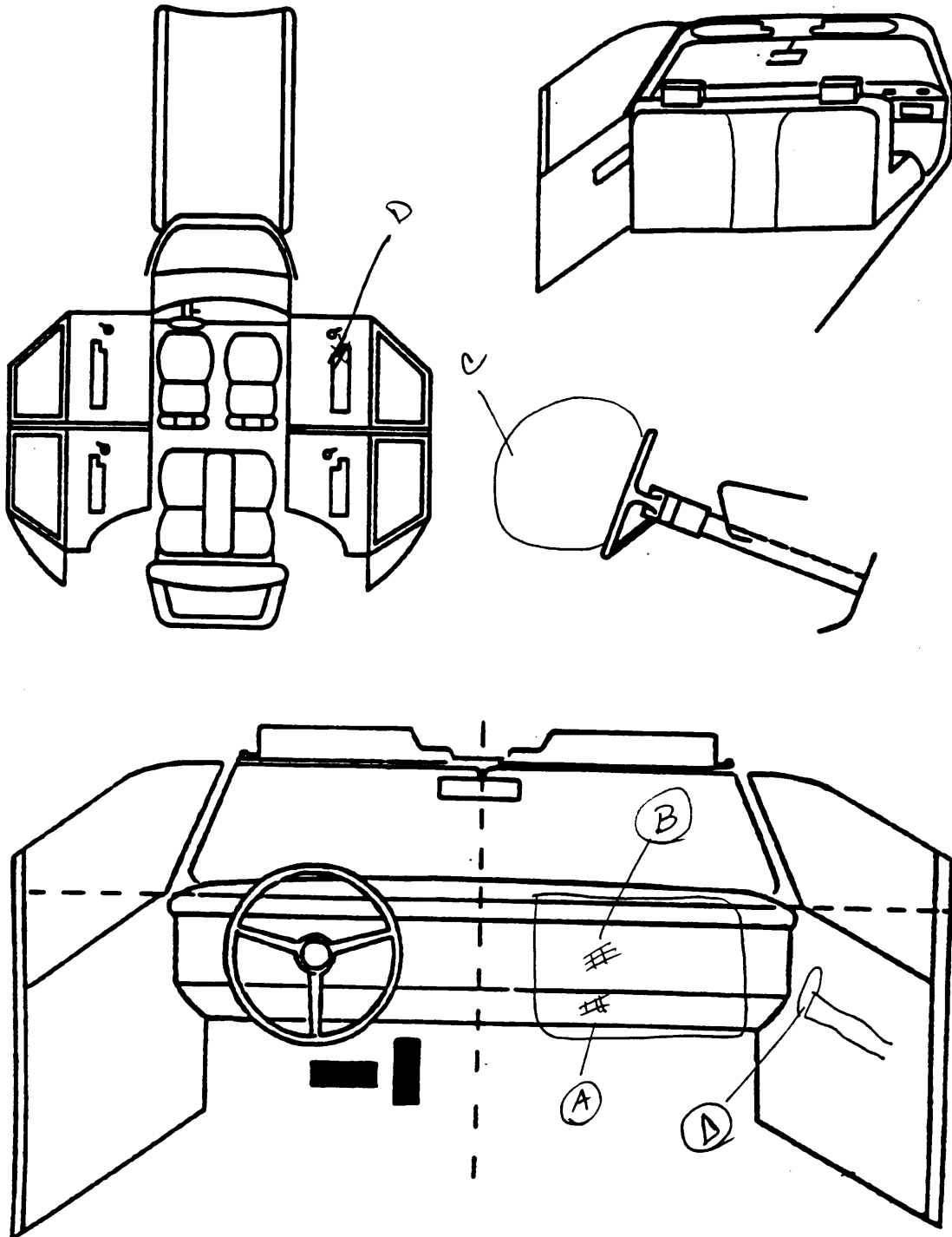
97. Adaptive (Assistive) Driving Equipment 0

- (0) No adaptive driving equipment
 (1) Adaptive driving equipment installed (Check all that apply.)
☐ Hand controls for braking/acceleration
☐ Steering control devices (attached to OEM steering wheel)
☐ Steering knob attached to steering wheel
☐ Low effort power steering (unit or device)
☐ Replacement steering wheel (i.e., reduced diameter)
☐ Joy-stick steering controls
☐ Wheelchair tie-downs
☐ Modification to seat belts (specify): _____
☐ Additional or relocated switches (specify): _____
☐ Raised roof
☐ Wall-mounted head rest (used behind wheelchair)
☐ Other adaptive device (specify): _____

(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).
 Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
 Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	180	02	FACE	Blood	2
B	180	02	"	TISSUE	1
C	170	01	FACE	LIPSTICK	1
D	102	02	AIR BAG	SCUFF	3
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

FRONT

- (001) Windshield
 (002) Mirror
 (003) Sunvisor
 (004) Steering wheel rim
 (005) Steering wheel hub/spoke
 (006) Steering wheel (combination of codes 004 and 005)
 (007) Steering column, transmission selector lever, other attachment
 (008) Cellular telephone or CB radio
 (009) Add on equipment (e.g., tape deck, air conditioner)
 (010) Left instrument panel and below
 (011) Center instrument panel and below
 (012) Right instrument panel and below
 (013) Glove compartment door
 (014) Knee bolster
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
 (017) Windshield reinforced by exterior object, (specify):
 (019) Other front object (specify):

CODES FOR INTERIOR COMPONENTS

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
 (052) Left side hardware or armrest
 (053) Left A (A1/A2)-pillar
 (054) Left B-pillar
 (055) Other left pillar (specify):
 (056) Left side window glass
 (057) Left side window frame
 (058) Left side window sill
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (060) Other left side object (specify):

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests
 (102) Right side hardware or armrest
 (103) Right A (A1/A2)-pillar
 (104) Right B-pillar
 (105) Other right pillar (specify):
 (106) Right side window glass
 (107) Right side window frame
 (108) Right side window sill
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (110) Other right side object (specify):

INTERIOR

- (151) Seat, back support
 (152) Belt restraint webbing/buckle
 (153) Belt restraint B-pillar or door frame attachment point
 (154) Other restraint system component (specify):
 (155) Head restraint system
 (160) Other occupants (specify):
 (161) Interior loose objects
 (162) Child safety seat (specify):
 (163) Other interior object (specify):
 AIR BAG
 (170) Air bag-driver side
 (175) Air bag compartment cover-driver side
 (180) Air bag-passenger side
 (185) Air bag compartment cover-passenger side
 (190) Other air bag (specify)
 (195) Other air bag compartment cover (specify)

ROOF

- (201) Front header
 (202) Rear header
 (203) Roof left side rail
 (204) Roof right side rail
 (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
 (252) Floor or console mounted transmission lever, including console
 (253) Parking brake handle
 (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
 (302) Backlight storage rack, door, etc.
 (303) Other rear object (specify):

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
 (402) Steering control devices (attached to OEM steering wheel)
 (403) Steering knob attached to steering wheel
 (405) Replacement steering wheel (i.e., reduced diameter)
 (406) Joy stick steering controls
 (407) Wheelchair tie-downs
 (408) Modification to seat belts, (specify):
 (409) Additional or relocated switches, (specify):
 (410) Raised roof
 (411) Wall mounted head rest (used behind wheel chair)
 (412) Other adaptive device (specify):

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	04		04
	Proper Use	1		4
	Failure Modes	1		1
	Anchorage Adjustment	3		5
SECOND	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	04		04
	Proper Use	1		4
	Failure Modes	1		1
	Anchorage Adjustment	9		9
OTHER	Availability	4	3	4
	Evidence of usage	04	04	04
	Used in this crash?	00	00	00
	Proper Use	0	0	0
	Failure Modes	0	0	0
	Anchorage Adjustment	9	0	9

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):
- (9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left Front	Right Front	Other
F I R S T	Availability/Function	/	/	
	Deployment	/	/	
	Failure	/	/	

Air Bag System Availability/Function

(0) Not equipped/not available

(1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled

(9) Unknown

Are There Indications of Air Bag System Failure? (This Occupant Position)

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(9) Unknown

Frontal Air Bag System Deployment (This Occupant Position)

(0) Not equipped/not available

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, accident sequence undetermined

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

(0) Not equipped with an "other" air bag

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, details unknown

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	0	0
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function

(0) Not equipped/not available

(1) 2 point automatic belts

(2) 3 point automatic belts

(3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered inoperative

(9) Unknown

Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Automatic belt in use

(2) Automatic belt not in use (manually disconnected, motorized track inoperative)

(3) Automatic belt use unknown

(9) Unknown

Automatic (Passive) Belt System Type

(0) Not equipped/not available

(1) Non-motorized system

(2) Motorized system

(9) Unknown

Proper Use of Automatic (Passive) Belt System

(0) Not equipped/not available/not used

(1) Automatic belt used properly

(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm

(4) Automatic shoulder belt worn behind back

(5) Automatic belt worn around more than one person

(6) Lap portion of automatic belt worn on abdomen

(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of automatic belt system (specify): _____

(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident

(0) Not equipped/not available/not in use

(1) No automatic belt failure(s)

(2) Torn webbing (stretched webbing not included)

(3) Broken buckle or latchplate

(4) Upper anchorage separated

(5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other automatic belt failure (specify): _____

(9) Unknown

FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data for the driver and first seat passenger in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
Type of air bag?	1	1
Flaps open at tear points?	2	2
Flaps damaged?	1	1
Air bag damaged?	01	01
Source of air bag damage	01	01
Air bag tethered?	1	1
Air bag have vent ports?	2	1
Other occupant contact air bag?	1	1
Occupant wearing eyewear?	3	1

Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

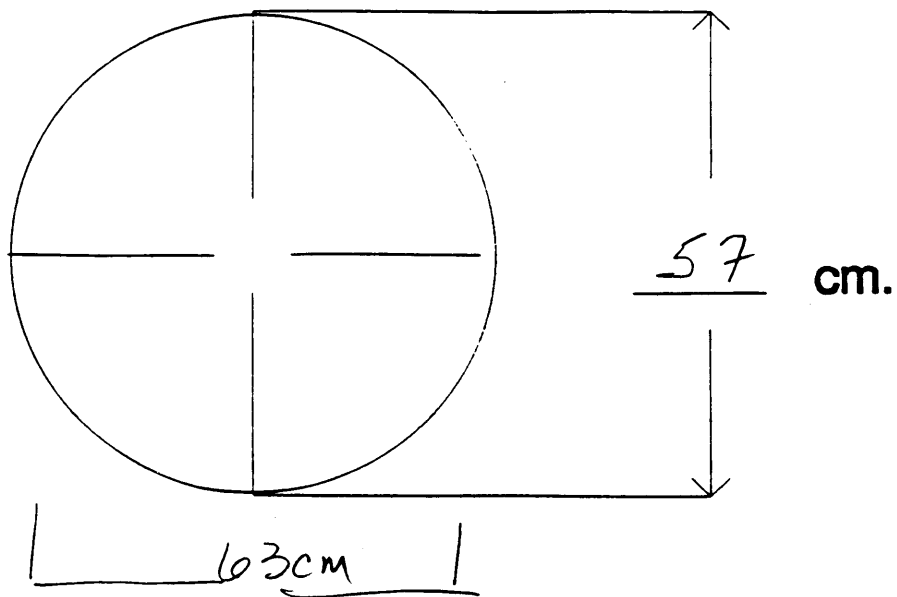
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was This Occupant Wearing Eye-wear?

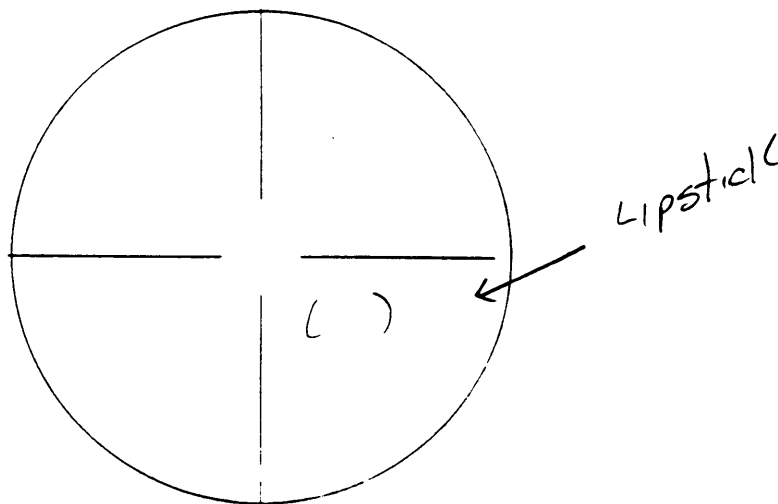
- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)



DRIVER AIR BAG SKETCHES (Cont'd)

3. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

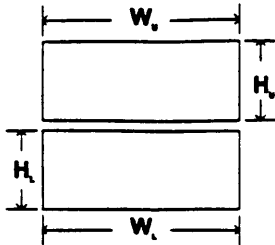
b. Lower Flap

width (W_u) 17

width (W_l) 17.5

height (H_u) 6

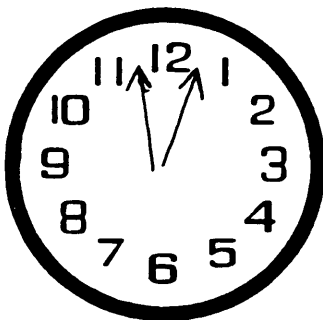
height (H_l) 7



4. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

5. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

6. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS





INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

3. Vehicle Number

02

INTEGRITY

4. Passenger Compartment Integrity

00

(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield
- (02) Door (side)
- (03) Door/hatch (back door)
- (04) Roof
- (05) Roof glass
- (06) Side window
- (07) Rear window (backlight)
- (08) Roof and roof glass
- (09) Windshield and door (side)
- (10) Windshield and roof
- (11) Side and rear window (side window and backlight)
- (12) Windshield and side window
- (13) Door and side window
- (98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 1

- (0) No door/gate/hatch
- (1) Door/gate/hatch remained closed and operational
- (2) Door/gate/hatch came open during collision
- (3) Door/gate/hatch jammed shut
- (8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 \neq 2, Then code 0

10. LF 1 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (8) Other failure (specify):

(9) Unknown

GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 4 17. RF 4 18. LR 4 19. RR 4
20. BL 4 21. Roof 0 22. Other 4

- (0) No glazing
- (1) AS-1 - Laminated
- (2) AS-2 - Tempered
- (3) AS-3 - Tempered-tinted (original)
- (4) AS-2 - Tempered-with after market tint
- (5) AS-3 - Tempered-tinted (with additional after market tint)
- (6) AS-14 - Glass/Plastic
- (7) Glazing removed prior to accident
- (8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2
28. BL 1 29. Roof 0 30. Other 1

- (0) No glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (7) Glazing removed prior to accident
- (9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 1 35. RR 1
36. BL 1 37. Roof 0 38. Other 1

- (0) No glazing
- (1) No glazing damage from impact forces
- (2) Glazing in place and cracked from impact forces
- (3) Glazing in place and holed from impact forces
- (4) Glazing out-of-place (cracked or not) and not holed from impact forces
- (5) Glazing out-of-place and holed from impact forces
- (6) Glazing disintegrated from impact forces
- (7) Glazing removed prior to accident
- (9) Unknown if damaged

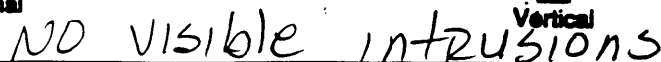
Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1
44. BL 1 45. Roof 0 46. Other 1

- (0) No glazing
- (1) No occupant contact to glazing
- (2) Glazing contacted by occupant but no glazing damage
- (3) Glazing in place and cracked by occupant contact
- (4) Glazing in place and holed by occupant contact
- (5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (6) Glazing out-of-place by occupant contact and holed by occupant contact
- (7) Glazing removed prior to accident
- (8) Glazing disintegrated by occupant contact
- (9) Unknown if contacted by occupant

Note: Sketch intruded areas

Note: Sketch intruded areas

[illegible]

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat
 (11) Left
 (12) Middle
 (13) Right

Second Seat
 (21) Left
 (22) Middle
 (23) Right

Third Seat
 (31) Left
 (32) Middle
 (33) Right

Fourth Seat
 (41) Left
 (42) Middle
 (43) Right

(97) Catastrophic
 (98) Other enclosed area (specify)

(99) Unknown

INTRUDING COMPONENT*Interior Components*

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): _____

Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

	—	0	=	0
--	---	---	---	---

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

STEERING COLUMN

INSTRUMENT PANEL

87. Steering Column Type

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify):
 (9) Unknown

88. Tilt Steering Column Adjustment

- (0) No tilt steering column
 (1) Full up
 (2) Between full up and center
 (3) Center
 (4) Between center and full down
 (5) Full down
 (9) Unknown

89. Telescoping Steering Column Adjustment

- (0) No telescoping steering column
 (1) Full back
 (2) Between full back and midpoint
 (3) Midpoint
 (4) Between midpoint and full forward
 (5) Full forward
 (9) Unknown

90. Steering Rim/Spoke Deformation

- Code actual measured
 deformation to the nearest centimeter
 (00) No steering rim deformation
 (01-14) Actual measured value in centimeters
 (15) 15 centimeters or more
 (98) Observed deformation cannot be measured
 (99) Unknown

91. Location of Steering Rim/Spoke Deformation

- (00) No steering rim deformation

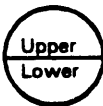
Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke
 (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown



92. Odometer Reading

_____ kilometers
 Code to the nearest 1,000 kilometers
 (000) No odometer
 (001) Less than 1,500 kilometers
 (500) 499,500 kilometers or more
 (999) Unknown
149,629 miles X 1.6093 = 240,772 kilometers
 Source: _____

93. Instrument Panel Damage from Occupant Contact?

- (0) No
 (1) Yes
 (9) Unknown

94. Type of Knee Bolster Covering

- (0) No knee bolster
 (1) Padded
 (2) Rigid plastic
 (8) Other (specify):
 (9) Unknown

95. Knee Bolsters Deformed from Occupant Contact?

- (0) No knee bolster
 (1) No deformation
 (2) Yes - deformation
 (9) Unknown

96. Did Glove Compartment Door Open During Collision(s)?

- (0) No glove compartment door
 (1) No - door did not open
 (2) Yes - door opened
 (9) Unknown

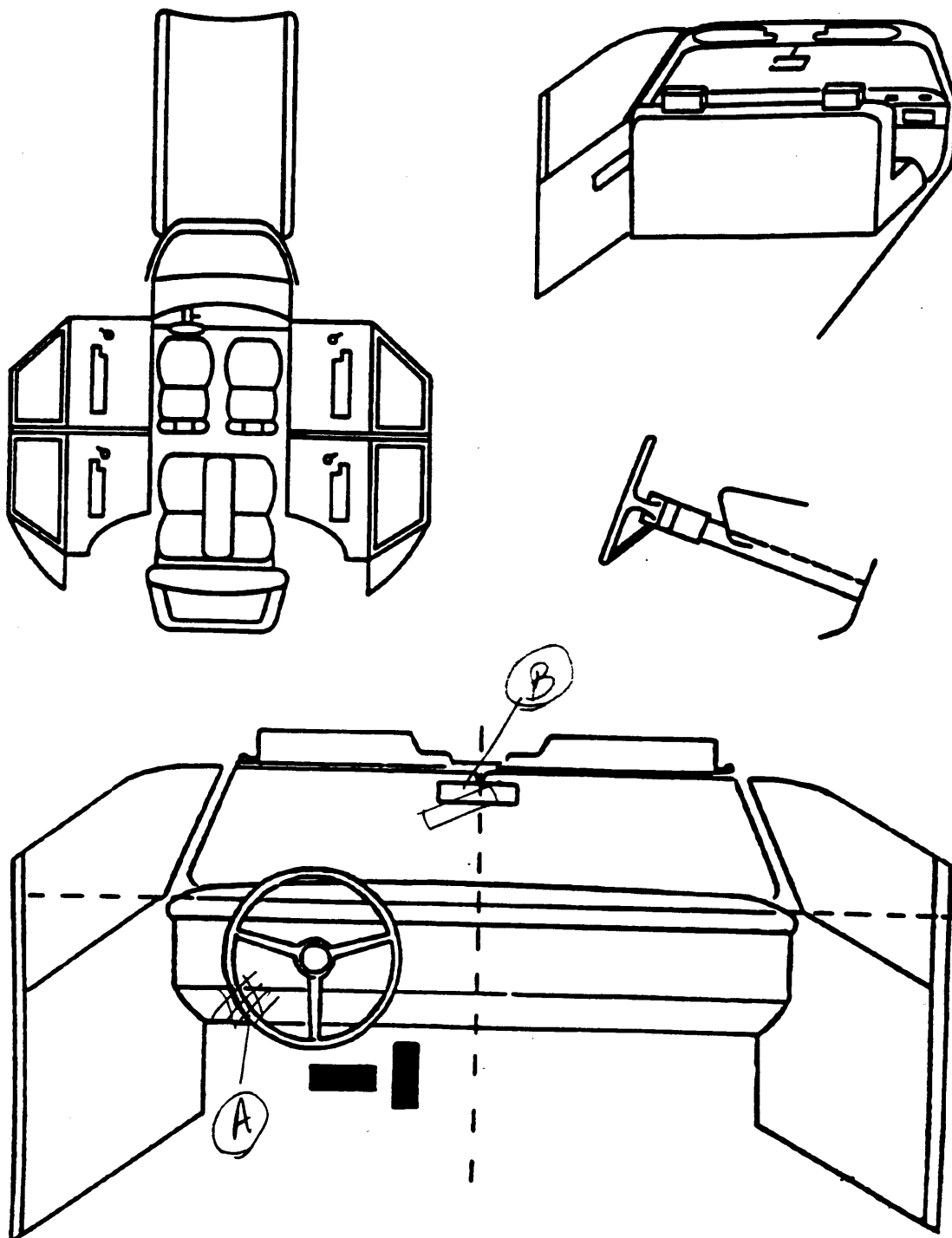
97. Adaptive (Assistive) Driving Equipment

- (0) No adaptive driving equipment
 (1) Adaptive driving equipment installed (Check all that apply.)
 [] Hand controls for braking/acceleration
 [] Steering control devices (attached to OEM steering wheel)
 [] Steering knob attached to steering wheel
 [] Low effort power steering (unit or device)
 [] Replacement steering wheel (i.e., reduced diameter)
 [] Joy-stick steering controls
 [] Wheelchair tie-downs
 [] Modification to seat belts (specify):
 [] Additional or relocated switches (specify):
 [] Raised roof
 [] Wall-mounted head rest (used behind wheelchair)
 [] Other adaptive device (specify):

(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	010	01	L Knee	Dented	1
B	002	01	HEAD	tilted	3
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (001) Windshield
 (002) Mirror
 (003) Sunvisor
 (004) Steering wheel rim
 (005) Steering wheel hub/spoke
 (006) Steering wheel (combination of codes 004 and 005)
 (007) Steering column, transmission selector lever, other attachment
 (008) Cellular telephone or CB radio
 (009) Add on equipment (e.g., tape deck, air conditioner)
 (010) Left instrument panel and below
 (011) Center instrument panel and below
 (012) Right instrument panel and below
 (013) Glove compartment door
 (014) Knee bolster
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
 (017) Windshield reinforced by exterior object, (specify):

 (019) Other front object (specify):

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
 (052) Left side hardware or armrest
 (053) Left A (A1/A2)-pillar
 (054) Left B-pillar
 (055) Other left pillar (specify):

 (056) Left side window glass
 (057) Left side window frame
 (058) Left side window sill
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (060) Other left side object (specify):

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests
 (102) Right side hardware or armrest
 (103) Right A (A1/A2)-pillar
 (104) Right B-pillar
 (105) Other right pillar (specify):

 (106) Right side window glass
 (107) Right side window frame
 (108) Right side window sill
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (110) Other right side object (specify):

INTERIOR

- (151) Seat, back support
 (152) Belt restraint webbing/buckle
 (153) Belt restraint B-pillar or door frame attachment point
 (154) Other restraint system component (specify):

 (155) Head restraint system
 (160) Other occupants (specify):

 (161) Interior loose objects
 (162) Child safety seat (specify):

 (163) Other interior object (specify):

AIR BAG
 (170) Air bag-driver side
 (175) Air bag compartment cover-driver side
 (180) Air bag-passenger side
 (185) Air bag compartment cover-passenger side
 (190) Other air bag (specify):

 (195) Other air bag compartment cover (specify):

ROOF

- (201) Front header
 (202) Rear header
 (203) Roof left side rail
 (204) Roof right side rail
 (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
 (252) Floor or console mounted transmission lever, including console
 (253) Parking brake handle
 (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
 (302) Backlight storage rack, door, etc.
 (303) Other rear object (specify):

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
 (402) Steering control devices (attached to OEM steering wheel)
 (403) Steering knob attached to steering wheel
 (405) Replacement steering wheel (i.e., reduced diameter)
 (406) Joy stick steering controls
 (407) Wheelchair tie-downs
 (408) Modification to seat belts, (specify):

 (409) Additional or relocated switches, (specify):

 (410) Raised roof
 (411) Wall mounted head rest (used behind wheelchair)
 (412) Other adaptive device (specify):

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form. If a Child safety seat is present, encode the data on the back of this page. If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	0		0
	Proper Use	0		0
	Failure Modes	0		0
	Anchorage Adjustment	1		1
SECOND	Availability	3	3	3
	Evidence of usage	03	00	00
	Used in this crash?	00	00	00
	Proper Use	0	0	0
	Failure Modes	0	0	0
	Anchorage Adjustment	0	0	0
OTHER	Availability	3	3	3
	Evidence of usage	00	00	00
	Used in this crash?	00	00	00
	Proper Use	0	0	0
	Failure Modes	0	0	0
	Anchorage Adjustment	0	0	0

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

- (9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):

- (9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left Front	Right Front	Other
F I R S T	Availability/Function	<input type="radio"/>	<input type="radio"/>	
	Deployment	<input type="radio"/>	<input type="radio"/>	
	Failure	<input type="radio"/>	<input type="radio"/>	

Air Bag System Availability/Function

(0) Not equipped/not available

(1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled

(9) Unknown

Are There Indications of Air Bag System Failure? (This Occupant Position)

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(9) Unknown

Frontal Air Bag System Deployment (This Occupant Position)

(0) Not equipped/not available

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, accident sequence undetermined

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

(0) Not equipped with an "other" air bag

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, details unknown

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	<input type="radio"/>	<input type="radio"/>
	Use	<input type="radio"/>	<input type="radio"/>
	Type	<input type="radio"/>	<input type="radio"/>
	Proper Use	<input type="radio"/>	<input type="radio"/>
	Failure Modes	<input type="radio"/>	<input type="radio"/>

Automatic (Passive) Belt System Availability/Function

(0) Not equipped/not available

(1) 2 point automatic belts

(2) 3 point automatic belts

(3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered inoperative

(9) Unknown

Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Automatic belt in use

(2) Automatic belt not in use (manually disconnected, motorized track inoperative)

(3) Automatic belt use unknown

(9) Unknown

Automatic (Passive) Belt System Type

(0) Not equipped/not available

(1) Non-motorized system

(2) Motorized system

(9) Unknown

Proper Use of Automatic (Passive) Belt System

(0) Not equipped/not available/not used

(1) Automatic belt used properly

(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm

(4) Automatic shoulder belt worn behind back

(5) Automatic belt worn around more than one person

(6) Lap portion of automatic belt worn on abdomen

(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of automatic belt system (specify): _____

(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident

(0) Not equipped/not available/not in use

(1) No automatic belt failure(s)

(2) Torn webbing (stretched webbing not included)

(3) Broken buckle or latchplate

(4) Upper anchorage separated

(5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other automatic belt failure (specify): _____

(9) Unknown

FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data for the driver and first seat passenger in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
Type of air bag?	0	0
Flaps open at tear points?	0	0
Flaps damaged?	0	0
Air bag damaged?	00	00
Source of air bag damage	00	00
Air bag tethered?	0	0
Air bag have vent ports?	0	0
Other occupant contact air bag?	0	0
Occupant wearing eyewear?	0	0

Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Did The Air Bag Have Vent Ports?

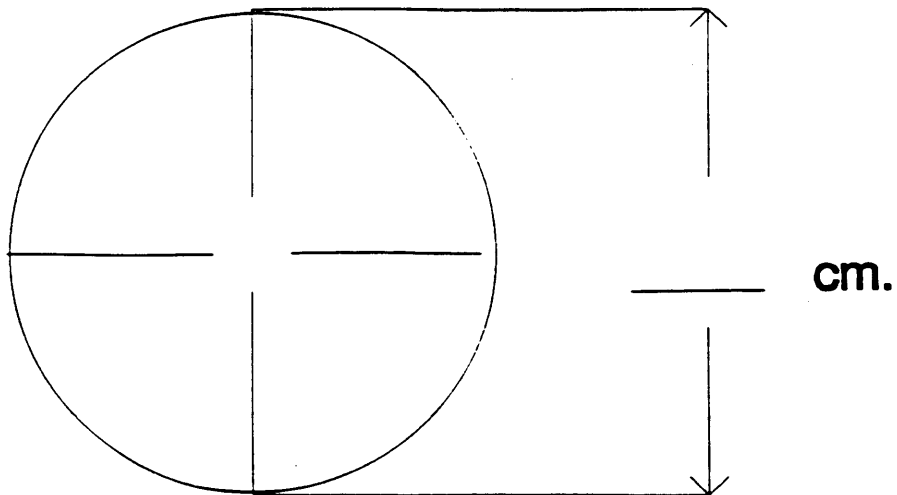
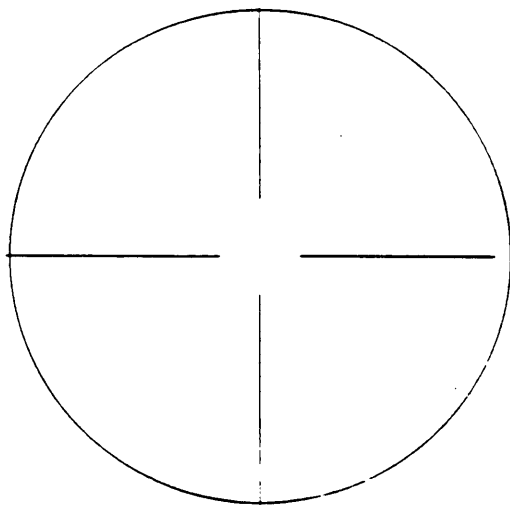
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was This Occupant Wearing Eye-wear?

- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES**1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)****2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)**

DRIVER AIR BAG SKETCHES (Cont'd)

3. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

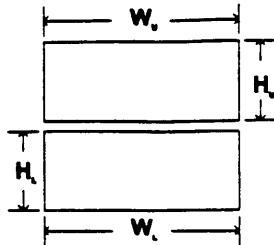
b. Lower Flap

width (W_U) _____

width (W_L) _____

height (H_U) _____

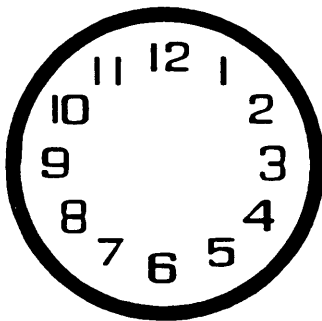
height (H_L) _____



4. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

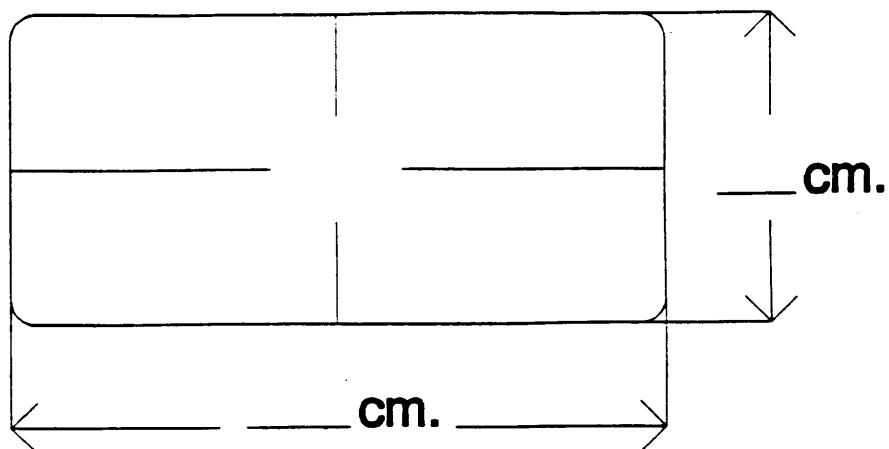
5. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

6. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS

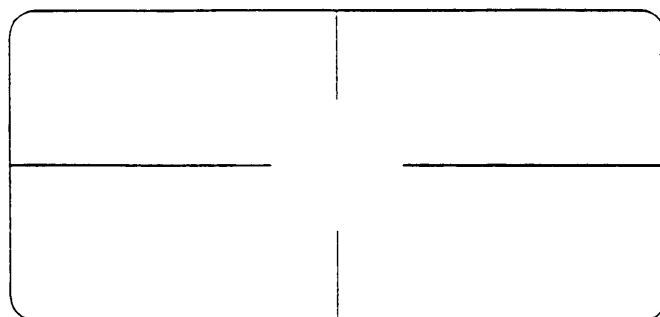


PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)



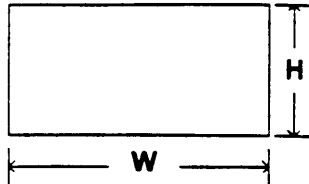
PASSENGER AIR BAG SKETCHES (Cont'd)

3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

a. Flap

width (W) _____

height (H) _____



4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

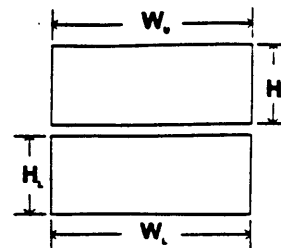
b. Lower Flap

width (W_U) _____

width (W_L) _____

height (H_U) _____

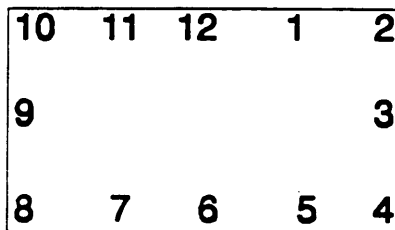
height (H_L) _____



5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS



"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)

"OTHER" AIR BAG SKETCHES (Cont'd)

3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG

4. SKETCH AIR BAG VENT PORTS

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	1		1
	Seat Type	02		02
	Seat Performance	1		1
	Seat Orientation	1		1
	Seat Track Position	5		4
	Seat Back Incline Pre/Post Impact	23		23
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	06	06	06
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	1	1	1
	Seat Back Incline Pre/Post Impact	01	01	01
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

HEAD RESTRAINTS/SEAT EVALUATION

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
- Specify: _____
- (9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

Seat Track Adjusted Position Prior To Impact

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

Adjustable Seat Track

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

Seat Back Incline Prior and Post Impact

- (00) Occupant not seated or no seat
- (01) Not adjustable

Upright prior to impact

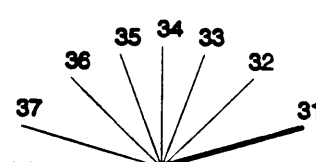
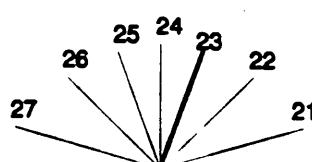
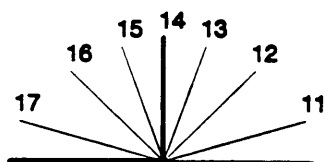
- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

Slightly reclined prior to impact

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position
- (99) Unknown



Coding diagrams for Seat Back Incline Position Prior and Post Impact

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): _____
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): _____
- (09) Unknown orientation
- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): _____
- (19) Unknown orientation
- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): _____
- (29) Unknown orientation
- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat
- Not Designed with Harness/Shield/Tether
- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used
- Designed With Harness/Shield/Tether
- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used
- Unknown If Designed With Harness/Shield/Tether
- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used
- (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [☒] Yes [☐]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

(9) Unknown**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No [☒] Yes [☐]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

Appendix F:

NASS CDS INTERVIEW FORM:

CASE VEHICLE DRIVER



INTERVIEW FORM (A)

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s): <u>DRIVER of</u>
2. Case Number - Stratum <u>9508</u>	<u>CASE vehicle through</u>
3. Vehicle Number <u>01</u>	<u>NTSB / Questionnaire</u>

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

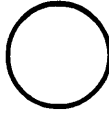
If the driver was not the person interviewed, was an appointment made for a follow-up interview?

DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

ACCIDENT DIAGRAM

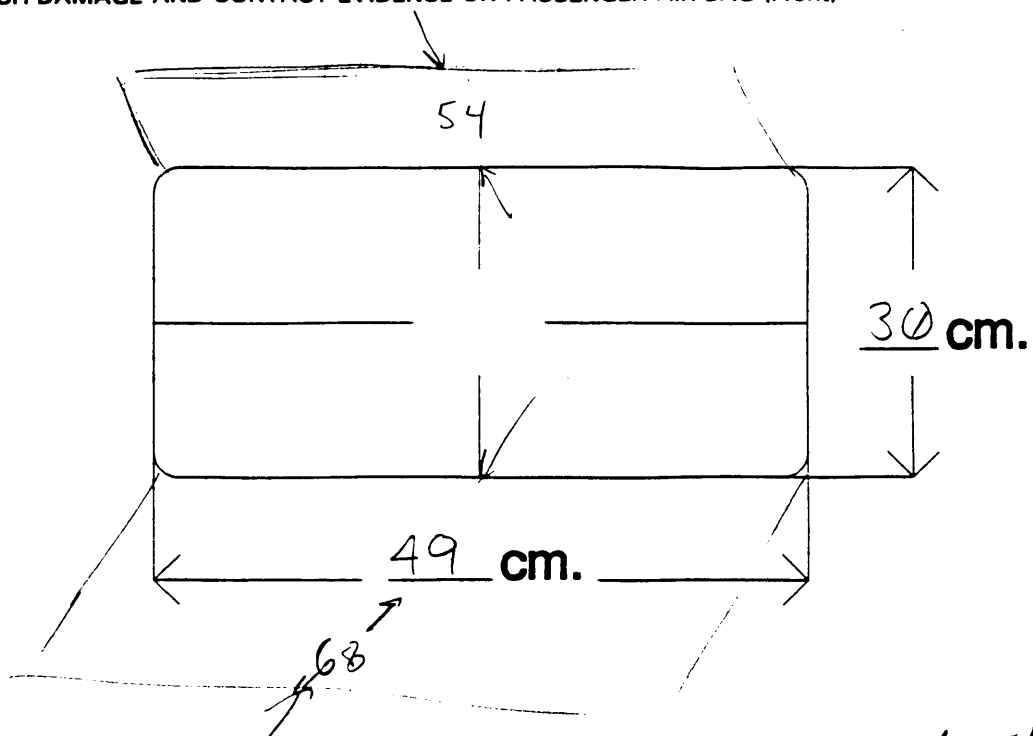


NORTH

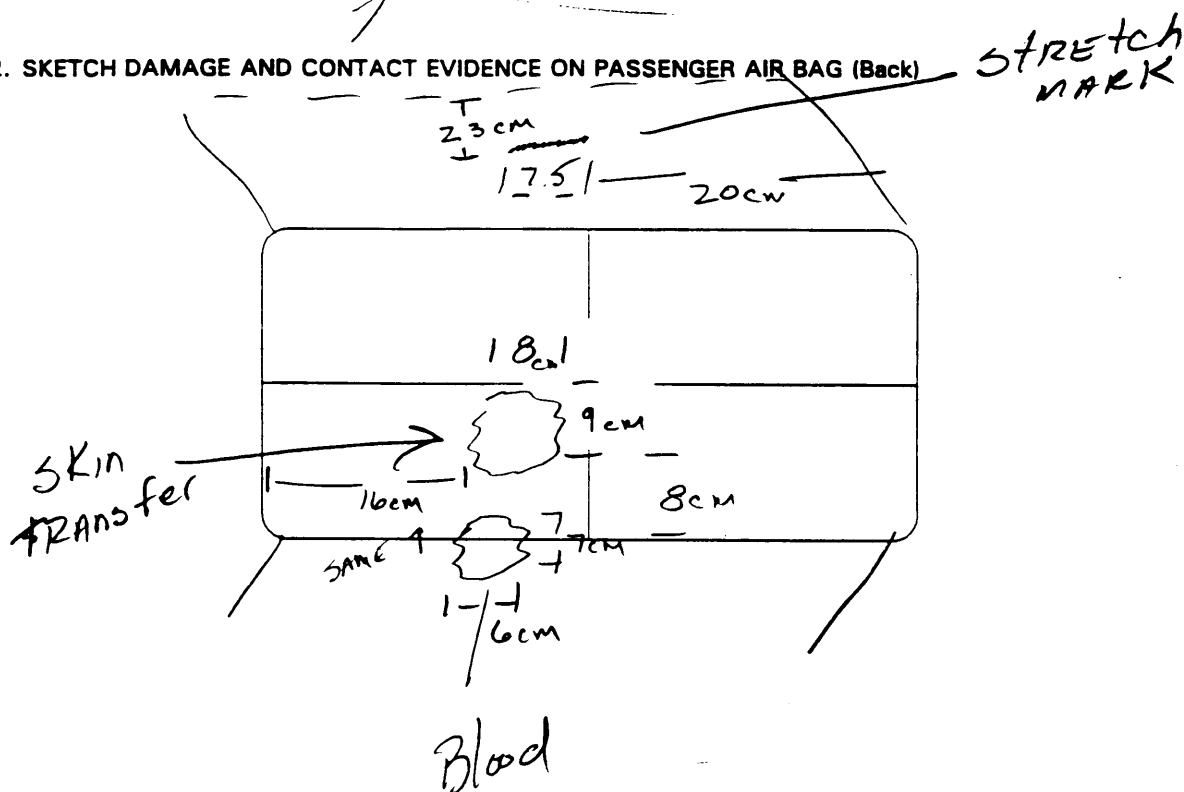
The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)



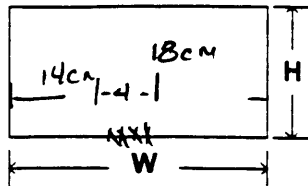
PASSENGER AIR BAG SKETCHES (Cont'd)

3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

a. Flap

width (W) 32 cm

height (H) 15 cm



4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

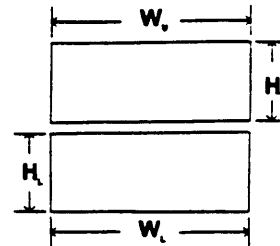
b. Lower Flap

width (W_U) _____

width (W_L) _____

height (H_U) _____

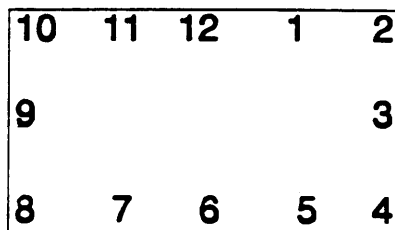
height (H_L) _____



5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS



N/A

"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)

"OTHER" AIR BAG SKETCHES (Cont'd)

3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG

4. SKETCH AIR BAG VENT PORTS

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	1		1
	Seat Type	02		02
	Seat Performance	1		1
	Seat Orientation	1		1
	Seat Track Position	4		4
	Seat Back Incline Pre/Post Impact	14		14
SECOND	Head Restraint Type/Damage	1		1
	Seat Type	02		02
	Seat Performance	1		1
	Seat Orientation	1		1
	Seat Track Position	1		1
	Seat Back Incline Pre/Post Impact	14		14
THIRD	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	4	4	4
	Seat Back Incline Pre/Post Impact	0	0	0
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

HEAD RESTRAINTS/SEAT EVALUATION

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
- Specify: _____
- (9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

Seat Track Adjusted Position Prior To Impact

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track
- Adjustable Seat Track*
- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

Seat Back Incline Prior and Post Impact

- (00) Occupant not seated or no seat
- (01) Not adjustable

Upright prior to impact

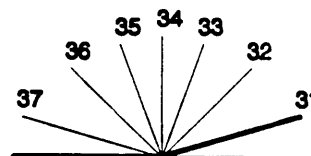
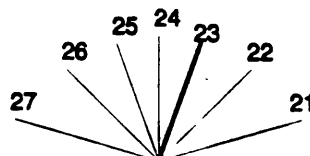
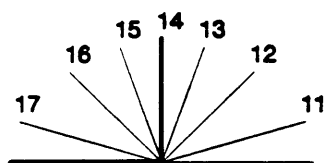
- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

Slightly reclined prior to impact

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position
- (99) Unknown



Coding diagrams for Seat Back Incline Position Prior and Post Impact

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

(0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat
 (7) Other type child safety seat (specify): _____
 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

(00) No child safety seat

Designed for Rear Facing for This Age/Weight
 (01) Rear facing
 (02) Forward facing
 (08) Other orientation (specify): _____
 (09) Unknown orientation

Designed for Forward Facing for This Age/Weight
 (11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify): _____
 (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
 (21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify): _____
 (29) Unknown orientation

(99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage
 Note: Options Below Are Used for Variables 3-5.
 (00) No child safety seat

Not Designed with Harness/Shield/Tether
 (01) After market harness/shield/tether added, not used
 (02) After market harness/shield/tether used
 (03) Child safety seat used, but no after market harness/shield/tether added
 (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
 (11) Harness/shield/tether not used
 (12) Harness/shield/tether used
 (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
 (21) Harness/shield/tether not used
 (22) Harness/shield/tether used
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

6. Child Safety Seat Make/Model
 (Specify make/model and occupant number)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
(2) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area

- (1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown**Ejection Medium**

- (1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

(9) Unknown**Medium Status (Immediately Prior to Impact)**

- (1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No ☒ Yes ☐

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

Appendix E:

NASS CDS VEHICLE FORMS: VEHICLE #2



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9508
3. Vehicle Number 02

VEHICLE IDENTIFICATION

4. Vehicle Model Year 85
Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify): Chevrolet 20

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify): Suburban 431

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

7. Body Type 16
Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number

168EC16L9FF 17

Left justify; Slash zeros and letter Z (0 and-Z)
No VIN—Code all zeros Unknown—Code all nines

9. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

11. Police Reported Travel Speed 999
Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

____ mph X 1.6093 = ____ kmph

12. Speed Limit 048
(000) No statutory limit
Code posted or statutory speed limit
in kmph
(999) Unknown

30 mph X 1.6093 = 048 kmph

13. Police Reported Alcohol Presence For Driver 0
(0) No alcohol present
(1) Yes alcohol present
(7) Not reported
(8) No driver present
(9) Unknown

14. Alcohol Test Result For Driver 96
Code actual value (decimal implied
before first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source: PAR

15. Police Reported Other Drug Presence For Driver 0
(0) No other drug(s) present
(1) Yes other drug(s) present
(7) Not reported
(8) No driver present
(9) Unknown

16. Other Drug Specimen Test Result For Driver 0
(0) No specimen test given
(1) Drug(s) not found in specimen
(2) Drug(s) found in specimen, (specify):
(3) Specimen test given, results unknown or not
obtained
(8) No driver present
(9) Unknown if specimen test given

17. Driver's Zip Code [REDACTED]
(00001) Driver not a resident of U.S. or territories
Code actual 5-digit zip code
(99998) No driver present
(99999) Unknown

18. Driver's Race/Ethnic Origin 1
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(7) Other (specify): _____
(8) No driver present
(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles (≤ 4,500 kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks (≤ 4,500 kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van (≤ 4,500 kgs GVWR)
- (23) Van based motorhome (≤ 4,500 kgs GVWR)
- (24) Van based school bus (≤ 4,500 kgs GVWR)
- (25) Van based other bus (≤ 4,500 kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, ≤ 4,500 kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks (≤ 4,500 kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks (> 4,500 kgs GVWR)

- (60) Step van (> 4,500 kgs GVWR)
- (61) Single unit straight truck (4,500 kgs < GVWR ≤ 8,850 kgs)
- (62) Single unit straight truck (8,850 kgs < GVWR ≤ 12,000 kgs)
- (63) Single unit straight truck (> 12,000 kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction 2
 (0) Non-interchange area and non-junction
 (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
 (3) Driveway, alley access related
 (4) Other junction (specify) _____

(5) Unknown type of junction

(9) Unknown

20. Trafficway Flow 1
 (0) Not physically divided (two way traffic)
 (1) Divided trafficway-median strip without positive barrier
 (2) Divided trafficway-median strip with positive barrier
 (3) One way traffic
 (9) Unknown

21. Number Of Travel Lanes 3
 (1) One
 (2) Two
 (3) Three
 (4) Four
 (5) Five
 (6) Six
 (7) Seven or more
 (9) Unknown

22. Roadway Alignment 1
 (1) Straight
 (2) Curve right
 (3) Curve left
 (9) Unknown

23. Roadway Profile 1
 (1) Level
 (2) Uphill grade (> 2%)
 (3) Hill crest
 (4) Downhill grade (> 2%)
 (5) Sag
 (9) Unknown

24. Roadway Surface Type 1
 (1) Concrete
 (2) Bituminous (asphalt)
 (3) Brick or block
 (4) Slag, gravel, or stone
 (5) Dirt
 (8) Other (specify): _____
 (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry
 (2) Wet
 (3) Snow or slush
 (4) Ice
 (5) Sand, dirt, or oil
 (8) Other (specify): _____
 (9) Unknown

26. Light Conditions 3

- (1) Daylight
 (2) Dark
 (3) Dark, but lighted
 (4) Dawn
 (5) Dusk
 (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions
 (1) Rain
 (2) Sleet/hail
 (3) Snow
 (4) Fog
 (5) Rain and fog
 (6) Sleet and fog
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
 (9) Unknown

28. Traffic Control Device 2

- (0) No traffic control(s)
 (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign
 (3) Yield sign
 (4) School zone sign
 (5) Other regulatory sign (specify): _____

(6) Warning sign (not RR crossing)

(7) Unknown sign

(8) Miscellaneous/other controls including RR controls (specify): _____

(9) Unknown

29. Traffic Control Device Functioning 2

- (0) No traffic control device
 (1) Traffic control device not functioning (specify): _____
 (2) Traffic control device functioning properly
 (9) Unknown

PRECRAASH DRIVER RELATED DATA**30. Driver's Distraction/Inattention To Driving** 97
(Prior To Recognition Of Critical Event)

- (00) No driver present
 (01) Attentive or not distracted
 (02) Looked but did not see

Distractions

(03) By other occupant(s), (specify): _____

(04) By moving object in vehicle (specify): _____

(05) While talking or listening to cellular phone
(specify location and type of phone): _____(06) While dialing cellular phone (specify location
and type of phone): _____

(07) While adjusting climate controls

(08) While adjusting radio, cassette, CD (specify): _____

(09) While using other device/object in vehicle
(specify): _____

(10) Sleepy or fell asleep

(11) Distracted by outside person, object, or event
(specify): _____

(12) Eating or drinking

(13) Smoking related

(97) Distracted/inattentive, details unknown

(98) Other, distraction (specify): _____

(99) Unknown

31. Pre-Event Movement 01
(Prior to Recognition of Critical Event)

- (00) No driver present
 (01) Going straight
 (02) Decelerating in traffic lane
 (03) Accelerating in traffic lane
 (04) Starting in traffic lane
 (05) Stopped in traffic lane
 (06) Passing or overtaking another vehicle
 (07) Disabled or parked in travel lane
 (08) Leaving a parking position
 (09) Entering a parking position
 (10) Turning right
 (11) Turning left
 (12) Making a U-turn
 (13) Backing up (other than for parking position)
 (14) Negotiating a curve
 (15) Changing lanes
 (16) Merging
 (17) Successful avoidance maneuver to a previous
critical event
 (97) Other (specify): _____

(99) Unknown

32. Critical Precrash Event 17*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
 (02) Stalled engine
 (03) Disabling vehicle failure (e.g., wheel fell off)
(specify): _____
 (04) Non-disabling vehicle problem (e.g., hood flew
up) (specify): _____
 (05) Poor road conditions (puddle, pot hole, ice, etc.)
(specify): _____
 (06) Traveling too fast for conditions
 (08) Other cause of control loss (specify): _____

(09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
 (11) Over the lane line on right side of travel lane
 (12) Off the edge of the road on the left side
 (13) Off the edge of the road on the right side
 (14) End departure
 (15) Turning left at intersection
 (16) Turning right at intersection
 (17) Crossing over (passing through) intersection
 (18) This vehicle decelerating
 (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Other vehicle stopped
 (51) Traveling in same direction with lower steady
speed
 (52) Traveling in same direction while decelerating
 (53) Traveling in same direction with higher speed
 (54) Traveling in opposite direction
 (55) In crossover
 (56) Backing
 (59) Unknown travel direction of other motor
vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left
lane line
 (61) From adjacent lane (same direction)—over right
lane line
 (62) From opposite direction—over left lane line
 (63) From opposite direction—over right lane line
 (64) From parking lane
 (65) From crossing street, turning into same
direction
 (66) From crossing street, across path
 (67) From crossing street, turning into opposite
direction
 (68) From crossing street, intended path not known
 (70) From driveway, turning into same direction
 (71) From driveway, across path
 (72) From driveway, turning into opposite direction
 (73) From driveway, intended path not known
 (74) From entrance to limited access highway
 (78) Encroachment by other vehicle—details
unknown

Pedestrian, Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
 (81) Pedestrian approaching roadway
 (82) Pedestrian—unknown location
 (83) Pedalcyclist or other nonmotorist in roadway
(specify): _____
 (84) Pedalcyclist or other nonmotorist approaching
roadway, (specify): _____
 (85) Pedalcyclist or other nonmotorist—unknown
location (specify): _____

Object or Animal

- (87) Animal in roadway
 (88) Animal approaching roadway
 (89) Animal—unknown location
 (90) Object in roadway
 (91) Object approaching roadway
 (92) Object—unknown location
 (98) Other critical precrash event (specify): _____
 (99) Unknown

33. Attempted Avoidance Maneuver 09

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

(99) Unknown

34. Pre-Impact Stability 2

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

(9) Pre-crash stability unknown

35. Pre-Impact Location 2

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

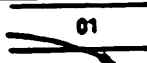




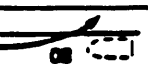
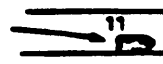
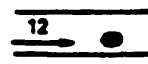
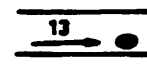


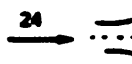
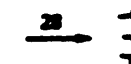
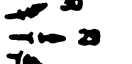





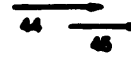
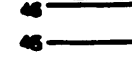
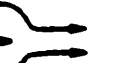










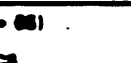
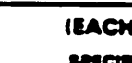




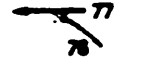


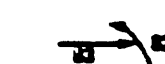



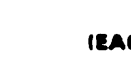





36. Accident Type 69

(Note: Applicable codes on back of this page)

- (00) No impact
Code the number of the diagram that best describes the accident circumstance
- (98) Other accident type (specify):

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEN., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEN., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 24 SLOWER 26, 28, 27	 25 DECEL. 28, 30, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEN.	 40 AVOID COLLISION WITH OBJECT	41 SPECIFICS OTHER SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 SPECIFICS OTHER	 46 SPECIFICS UNKNOWN	 47 SPECIFICS UNKNOWN	(EACH - 48) SPECIFICS OTHER	(EACH - 49) SPECIFICS UNKNOWN
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	 51 SPECIFICS OTHER	 52 SPECIFICS UNKNOWN	 53 SPECIFICS UNKNOWN	
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEN.	 60 AVOID COLLISION WITH OBJECT	61 SPECIFICS OTHER SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	 65 SPECIFICS OTHER	 66 SPECIFICS UNKNOWN	 67 SPECIFICS UNKNOWN	
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 SPECIFICS OTHER	 74 SPECIFICS UNKNOWN	
	K Turn Into Path	 77 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 81 SPECIFICS OTHER	 82 SPECIFICS UNKNOWN	
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 87 SPECIFICS OTHER	 88 SPECIFICS UNKNOWN	 89 SPECIFICS OTHER	 90 SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 94 OTHER ACCIDENT TYPE	 95 UNKNOWN ACCIDENT TYPE	 96 NO IMPACT

OCCUPANT RELATED

37. Driver Presence in Vehicle

- (0) Driver not present
(1) Driver present
(9) Unknown

38. Number of Occupants This Vehicle
(00-96) Code actual number of occupants
for this vehicle

- (97) 97 or more
(99) Unknown

39. Number of Occupant Forms Submitted

AIR BAG RELATED

40. Is this an AOPS Vehicle?

- (0) No (includes unknown)
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

41. Air Bag(s) Deployment, First Seat Frontal

- (0) Not equipped or not available
(1) No air bags deployed

Single Air Bag Vehicle

- (2) Driver air bag deployed
(3) Driver air bag, unknown if deployed

Multiple Air Bag Vehicle

- (4) Driver side only deployed
(5) Passenger side only deployed
(6) Driver and passenger side deployed
(7) Driver and passenger side unknown if deployed
(8) Air bag(s) deployed, details unknown
(9) Unknown

42. Air Bag(s) Deployment, Other Than First Seat Frontal

- (0) Not equipped with an "other" air bag
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, details unknown
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight

4311 Code weight to nearest 10 kilograms.

- (045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

4311 lbs X .4536 = 1955 kgs

Source: _____

44. Vehicle Cargo Weight

Code weight to nearest 10 kilograms.

- (000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

_____ lbs X .4536 = _____ kgs

Source: _____

ROLLOVER DATA

45. Rollover

- (00) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)

- (01-16) Code the number of quarter turns

- (17) Rollover, 17 or more quarter turns (specify): _____

- (98) Rollover--end-over-end (i.e., primarily about the lateral axis)

- (99) Rollover (overturn), details unknown

46. Rollover Initiation Type

- (00) No rollover
(01) Trip-over
(02) Flip-over
(03) Turn-over
(04) Climb-over
(05) Fall-over
(06) Bounce-over
(07) Collision with another vehicle
(08) Other rollover initiation type (specify): _____

- (98) Rollover--end-over-end

- (99) Unknown rollover initiation type

47. Location of Rollover Initiation

- (0) No rollover
(1) On roadway
(2) On shoulder--paved
(3) On shoulder--unpaved
(4) On roadside or divided trafficway median
(8) Rollover--end-over-end
(9) Unknown

48. Rollover Initiation Object Contacted

(Note: Applicable codes on back of page)

49. Location on Vehicle Where Initial Principal Tripping Force Is Applied

- (0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____

- (6) Non-contact rollover forces (specify): _____

- (8) Rollover--end-over-end

- (9) Unknown

50. Direction of Initial Roll

- (0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(8) Rollover--end-over-end
(9) Unknown roll direction

VERRIDE/UNDERRIDE (THIS VEHICLE)51. Front Override/Underride (this Vehicle) 052. Rear Override/Underride (this Vehicle) 0

- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

Override (see specific CDC)*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck or bus override (of any configuration)
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value

- (997) Noncollision
(998) Impact with object
(999) Unknown

53. Heading Angle For This Vehicle 08354. Heading Angle For Other Vehicle 224**RECONSTRUCTION DATA**55. Towed Trailing Unit 0

- (0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

56. Documentation of Trajectory Data for This Vehicle 1

- (0) No
(1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0

- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

(9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V58. Basis for Total (Resultant) Delta V (highest) 01

- (00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program -damage only routine
(02) Reconstruction program -damage and trajectory routine
(03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
(06) Other non-horizontal forces
(07) Sideswipe type damage
(08) Severe override
(09) Yielding object
(10) Overlapping damage
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):

(98) Other, (specify): _____

Insufficient physical evidence was present during this contractor's scene inspection. Instead, this contractor used a diagram provided by NTSB and worked backwards to develop our own impact and final rest positional information.

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

01919 Nearest kmph (highest) Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+019-19 Nearest kmph (highest) Nearest kmph (secondary)

(NOTE: 000 means greater than
 -0.5 kmph and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (999) Unknown

61. Lateral Component of Delta V

Highest

+003+3 Nearest kmph (highest) Nearest kmph (secondary)

(NOTE: 000 means greater than -0.5 kmph
 and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (999) Unknown

62. Energy Absorption

065,80065836 Nearest 100 joules (highest) Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
 (9997) 999,650 joules or more
 (9999) Unknown

63. Impact Speed

Highest

998 Nearest kmph (highest) Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (998) Trajectory algorithm not run
 (999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

(0) No reconstruction

(1) Collision fits model — results appear reasonable

(2) Collision fits model — results appear high

(3) Collision fits model — results appear low

(4) Borderline reconstruction — results appear reasonable

1

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

02525 Nearest kmph (highest) Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [] YES [X] NO

IF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [] YES [] NO

ESTIMATED DELTA V

VEHICLE INSPECTION

66. Estimated Highest Delta V (Researcher Determined) 2

(0) Reconstruction Delta V coded

Estimated Delta V

- (1) Less than 10 kmph
- (2) ≥ 10 kmph but < 25 kmph
- (3) ≥ 25 kmph but < 40 kmph
- (4) ≥ 40 kmph but < 55 kmph
- (5) ≥ 55 kmph

Other estimates of damage severity

- (6) Minor
- (7) Moderate
- (8) Severe
- (9) Unknown

67. Type of Vehicle Inspection 3

- (0) No inspection
- (1) Vehicle fully repaired-no damage evident
- (2) Partial inspection (specify):

- (3) Complete inspection

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67=0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

**THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.**

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number <u>10</u> 2. Case Number - Stratum <u>9508</u>		3. Vehicle Number <u>02</u>	
-----------------------------------------------------------------------------------	--	-----------------------------	--

VEHICLE IDENTIFICATION

VIN 1G8EC1649FF Model Year 85
Vehicle Make (specify): Chevrolet Vehicle Model (specify): Suburban

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
01	② Bumper Corner over 135 cm	Across front bumper	

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase 129.5 inches x 2.54 = 328⁹³ cm
 Overall Length 219.1 inches x 2.54 = 556⁵¹ cm
 Maximum Width 79.6 inches x 2.54 = 202 cm
 Curb Weight 4,311 pounds x 0.4536 = 1,955 kg
 Average Track _____ inches x 2.54 = _____ cm
 Front Overhang 33.8 inches x 2.54 = 85⁸⁵ cm
 Rear Overhang 55.8 inches x 2.54 = 141⁷³ cm
 Undeformed End Width _____ inches x 2.54 = 187 cm
 Engine Size: cyl/disl. _____ cc x 0.001 = 5.7 L
 V8 _____ CID x 0.0164 = _____ L

curb weight

1870
 1955 (4311)
 1959 (4318)
 2050 (4519)

SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} Color: {specify} Repair Cost: \$
 Transmission: {circle} Automatic Manual Speed: 3-speed | 4-speed | 5-speed | Other:
 Steering: {circle} Power-assisted | Manual Type: rack-and-pinion | worm-and-gear | Other
 {please describe}:
 Brakes: {circle} Power-assisted | Manual Type: 4-wheel disc | 4-wheel drum | 4-wheel hydraulic
Hydraulic | front disc, rear drum | Other:
 Observed Defects: {specify}
 Fleet Type: {circle} Private vehicle Rental vehicle | Leased vehicle | Commercial vehicle | Other
 {please describe}:

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE
a. Rotation physically restricted b. Tire deflatedRF 2
LF 1
RR 2
LR 2RF 2
LF 2
RR 2
LR 2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☒ Automatic

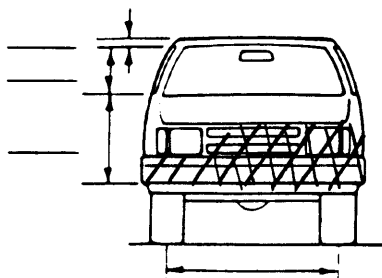
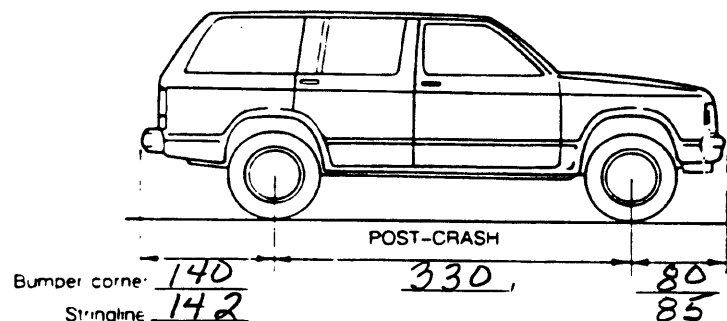
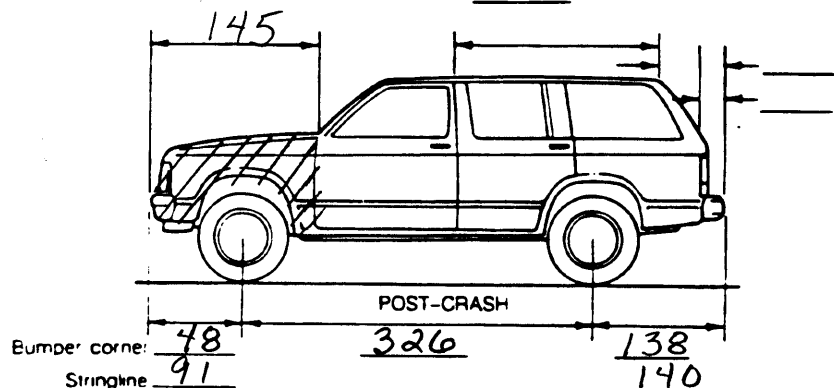
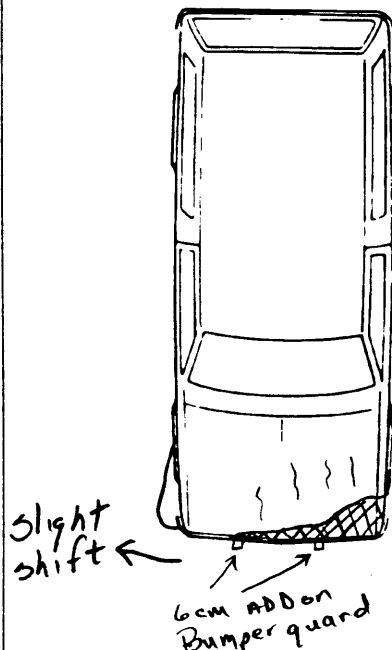
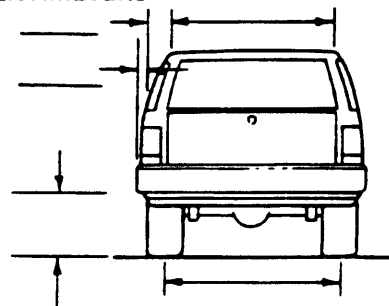
ORIGINAL SPECIFICATIONS

Wheelbase 329 cm
Overall Length 557 cm
Maximum Width 202 cm
Curb Weight 1955 kg
Average Track _____ cm
Front Overhang 86 cm
Rear Overhang 142 cm
Undeformed End Width 187 cm
Engine Size: cyl./displ. 5-7 LWHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)RF ± _____ °
LF ± _____ °
RR ± _____ °
LR ± _____ °
Within ± 5 degrees

DRIVE WHEELS

☐ FWD ☒ RWD ☐ 4WDApproximate Cargo Weight 0 kg

MEASUREMENTS IN CENTIMETERS

Original
Bumper height:

NOTES Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn — rollover (excludes end-over-end)
(32) Rollover—end-over-end
(33) Fire or explosion
(34) Jackknife
(35) Other intraunit damage (specify):

(36) Noncollision injury

(38) Other noncollision (specify):

(39) **Noncollision — details unknown**

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
(42) Tree (> 10 cm in diameter)
(43) Shrubbery or bush
(44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
 (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
 (52) Pole or post (> 30 cm in diameter)
 (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
(55) Impact attenuator
(56) Other traffic barrier (includes guardrail)
(specify):

- (57) Fence
(58) Wall
(59) Building
(60) Ditch or culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
(71) Medium/heavy truck or bus not in-transport
(72) Pedestrian
(73) Cyclist or cycle
(74) Other nonmotorist or conveyance

- | | |
|------|---------------------------------------|
| (75) | Vehicle occupant |
| (76) | Animal |
| (77) | Train |
| (78) | Trailer, disconnected in transport |
| (79) | Object fell from vehicle in-transport |
| (88) | Other nonfixed object (specify): |
| (89) | Unknown nonfixed object |
| (98) | Other event (specify): |
| (99) | Unknown event or object |

DEFORMATION CLASSIFICATION BY EVENT NUMBER

[illegible]

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>01</u>	6. <u>12</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>02</u>

Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	22. ±D
<u>187</u>	<u>037</u>	<u>034</u>	<u>026</u>	<u>010</u>	<u>001</u>	<u>000</u>	<u>+0026</u>

Second Highest Delta "V"

23. L	24. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	25. ±D
_____	_____	_____	_____	_____	_____	_____	_____

26. Undeformed End Width
(Coded when highest severity impact is an end plane impact.) 187
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(998) No highest severity end plane impact
(999) Unknown

27. Direct Damage Width
(For highest severity impact) 135
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(999) Unknown

28. Original Wheelbase 329
_____ Code to the nearest centimeter
(650) 650 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

29. Original Average Track Width 999
_____ Code to the nearest centimeter
(185) 185 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

FUEL SYSTEM

30. Are CDCs Documented
but Not Coded on The
Automated File?

- (0) No
(1) Yes

31. Researcher's Assessment of Vehicle
Disposition

- (0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

32. Is This A Multi-Stage Manufactured Vehicle
And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications
(1) Yes - post manufacturer modifications
(specify): _____

(Include photograph of CERTIFICATION
PLACARD in case report)

- (9) Unknown if vehicle is modified

35. Location of Fuel Tank-1 Filler Cap

36. Location of Fuel Tank-2 Filler Cap

- (0) No fuel tank
(1) On back plane
(2) Aft of center of the rear wheels (rear axle)
on left side plane
(3) Aft of center of the rear wheels (rear axle)
on right side plane
(4) Forward of center of the rear wheels (rear
axle) on left side plane
(5) Forward of center of the rear wheels (rear
axle) on right side plane
(6) Over the center of the rear wheels (rear
axle) on left side plane
(7) Over the center of the rear wheels (rear
axle) on right side plane
(8) Other (specify): _____
(9) Unknown

37. Type of Fuel Tank-1

38. Type of Fuel Tank-2

- (0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

39. Location of Fuel Tank-1

40. Location of Fuel Tank-2

- (0) No fuel tank
(1) Aft of center of the rear wheels (rear axle)
centered
(2) Aft of center of the rear wheels (rear axle)
left side
(3) Aft of center of the rear wheels (rear axle)
right side
(4) Forward of center of the rear wheels (rear
axle) centered
(5) Forward of center of the rear wheels (rear
axle) left side
(6) Forward of center of the rear wheels (rear
axle) right side
(7) Over center of the rear wheels (rear axle)
(8) Other (specify): _____
(9) Unknown

41. Damage to Fuel Tank-1

42. Damage to Fuel Tank-2

- (0) No fuel tank
(1) No damage to fuel tank
(2) Deformed, no seam failure
(3) Deformed, with a seam failure
(4) Punctured
(5) Lacerated (ripped)
(6) Abraded (scraped)
(7) Filler neck separation from the fuel tank
(8) Other damage (specify): _____
(9) Unknown

FIRE OCCURRENCE

33. Fire Occurrence

- (0) No fire

Yes, fire occurred

- (1) Minor
(2) Major
(9) Unknown

34. Origin of Fire

- (0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention
system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify): _____

- (9) Unknown

<p>43. Leakage Location of Fuel System-1 <u>1</u></p> <p>44. Leakage Location of Fuel System-2 <u>0</u></p> <p style="margin-left: 20px;">(0) No fuel tank (1) No fuel leakage</p> <p><i>Primary Area Of Leakage</i></p> <p style="margin-left: 20px;">(2) Tank (3) Filler neck (4) Cap (5) Lines/pump/filter (6) Vent/emission recovery (8) Other (specify): _____ (9) Unknown</p> <p>45. Fuel Type-1 <u>01</u></p> <p>46. Fuel Type-2 <u>00</u></p> <p><i>Single Fuel Type</i></p> <p style="margin-left: 20px;">(00) No fuel tank (01) Gasoline (02) Diesel (03) CNG (Compressed Natural Gas) (04) LPG (Liquid Petroleum Gas) also known as Propane (05) LNG (Liquid Natural Gas) (06) Methanol (M100 or M85) (07) Ethanol (E100 or E85) (08) Other (Hydrogen or others) (specify): _____</p> <p style="margin-left: 20px;">_____ _____</p> <p><i>Electric Powered or Electric/Solar Powered Vehicles</i></p> <p style="margin-left: 20px;">(10) Lead Acid Battery (11) Nickel-Iron Battery (12) Nickel-Cadmium Battery (13) Sodium Metal Chloride Battery (14) Sodium Sulfur Battery (18) Other (Specify): _____</p> <p style="margin-left: 20px;">_____ _____</p> <p>(98) Other Hybrid (specify): _____</p> <p style="margin-left: 20px;">_____ _____</p> <p>(99) Unknown fuel type</p>	<p>47. Is This Vehicle Equipped With More Than Two Fuel Tanks? <u>0</u></p> <p style="margin-left: 20px;">(0) No (one or two tanks only)</p> <p><i>Yes - More Than Two Tanks</i></p> <p style="margin-left: 20px;">(1) Yes -- <u>no damage</u> to any tank or filler cap and <u>no fuel system leakage</u> (2) Yes -- <u>no damage</u> to any tank or filler cap but <u>there is fuel system leakage</u> (specify leakage location): _____ _____ (3) Yes -- <u>damage</u> to an additional tank or filler cap and <u>there is fuel system leakage</u> (specify the following): Type of tank _____ Tank location _____ Filler cap location _____ Tank damage _____ Location of leakage _____ Type of fuel _____</p> <p>(9) Unknown if more than two tanks</p>
<p>COMMENTS</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***</p> <p>(GV10=0)</p> <p>DO NOT COMPLETE THE INTERIOR VEHICLE FORM.</p>	

CRASH DATA INFORMATION

IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:

SOURCE OF INFORMATION:	<input type="checkbox"/> Driver <input type="checkbox"/> Other occupant <input type="checkbox"/> Relative/friend
In which direction were you traveling?	<input type="checkbox"/> North <input type="checkbox"/> South <input type="checkbox"/> East <input checked="" type="checkbox"/> West turning South (Or where were they coming from or going to?) (L)
What lane were you in?	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> Other Note: lane 1 is the right curb lane
What was the condition of the roadway?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snow <input type="checkbox"/> Slush <input type="checkbox"/> Ice <input type="checkbox"/> Sand, dirt, oil <input type="checkbox"/> Other (specify)
What was the weather like? (Check all that apply)	<input type="checkbox"/> No adverse conditions <i>misty</i> <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Hail <input type="checkbox"/> Snow <input type="checkbox"/> Other (specify)
Was there any type of sign or signal present? (check all that apply)	<input type="checkbox"/> Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) <input checked="" type="checkbox"/> Stop sign <input type="checkbox"/> Yield sign <input type="checkbox"/> School zone sign <input type="checkbox"/> Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: <input type="checkbox"/> Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: <input type="checkbox"/> Miscellaneous control (including railroad controls) specify: <input type="checkbox"/> None <input type="checkbox"/> Unknown
If a traffic control device was present, was it functioning properly at the time of the crash?	<input checked="" type="checkbox"/> No traffic control device present <input type="checkbox"/> Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: <input type="checkbox"/> Functioning properly <input type="checkbox"/> Unknown
Can you estimate your travel speed before the crash? (in mph)	<input type="checkbox"/> Stopped <input checked="" type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Just before the crash, what were you doing or intending to do? (check all that apply)	<input type="checkbox"/> Going straight <input type="checkbox"/> Stopped <input checked="" type="checkbox"/> Turning left <input type="checkbox"/> Turning right <input type="checkbox"/> Slowing <input type="checkbox"/> Accelerating <input type="checkbox"/> Backing <input type="checkbox"/> Changing lanes to right <input type="checkbox"/> Other (specify): <input type="checkbox"/> Changing lanes to left
Did vehicle lose control due to weather or mechanical problems?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (describe)
Did driver take avoidance actions? <input checked="" type="checkbox"/> Yes (Check all that apply) → <input type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Braking with lock-up <input type="checkbox"/> Accelerating <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Braking without lock-up <input checked="" type="checkbox"/> Steering left <input type="checkbox"/> Releasing brakes <input type="checkbox"/> Steering right
Where was vehicle at time of collision?	<input type="checkbox"/> Original travel lane <input type="checkbox"/> Different travel lane <input checked="" type="checkbox"/> In intersection <input type="checkbox"/> Off roadway to right <input type="checkbox"/> Off roadway to left <input type="checkbox"/> Other (specify):
Can you estimate your travel speed at the time of collision? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input checked="" type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Describe all the impacts to the vehicle, including what the vehicle contacted) and how this vehicle moved to its stopped position, after the collision?	
What race does the driver consider themselves?	<input checked="" type="checkbox"/> White <input type="checkbox"/> American Indian, Eskimo or Aleut, Asian or Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown
Is the driver of Hispanic origin?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

VEHICLE INFORMATION

ROLLOVER DATA

DID THIS VEHICLE ROLL OVER DURING THE CRASH?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS
☒ NO - - SKIP TO "FIRE DATA" BELOW
☐ UNKNOWN - - SKIP TO "FIRE DATA" BELOW

Describe where the rollover began	<input type="checkbox"/> On roadway <input type="checkbox"/> On shoulder <input type="checkbox"/> On roadside or median <input type="checkbox"/> Unknown
What caused the vehicle to roll over?	<input type="checkbox"/> Other vehicle (specify vehicle number) _____ <input type="checkbox"/> Contact to object (specify): _____ <input type="checkbox"/> Other cause (specify): _____ <input type="checkbox"/> Unknown
Which direction did the vehicle roll?	<input type="checkbox"/> Toward the right (passenger side) <input type="checkbox"/> Toward the left (driver side) <input type="checkbox"/> End-over-end <input type="checkbox"/> Unknown
Estimate the number of quarter turns (each side) or complete turns (4 quarter turns) the vehicle did	_____ Number of quarter turns <input type="checkbox"/> Unknown _____ Number of complete turns
When the vehicle stopped rolling over, which side was in contact with the ground?	<input type="checkbox"/> Left side <input type="checkbox"/> Top <input type="checkbox"/> Right side <input type="checkbox"/> Wheels <input type="checkbox"/> Unknown

FIRE DATA

DID THIS VEHICLE EXPERIENCE A FIRE?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS
☒ NO - - SKIP THIS SECTION
☐ UNKNOWN - - SKIP THIS SECTION

Describe where the fire started, or where the smoke was first seen	<input type="checkbox"/> Under the hood <input type="checkbox"/> In the trunk/cargo area <input type="checkbox"/> Behind the instrument panel <input type="checkbox"/> Under the vehicle <input type="checkbox"/> In the passenger compartment <input type="checkbox"/> From other involved vehicle <input type="checkbox"/> Unknown
Did the fire start with the electrical system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
Did the fire start with the fuel system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
ASK IF THE FIRE INVOLVED THE FUEL SYSTEM Which part of the fuel system may have been involved?	<input type="checkbox"/> Fuel tank <input type="checkbox"/> Fuel lines <input type="checkbox"/> Engine compartment (specify component if known) <input type="checkbox"/> Unknown

Describe any additional rollover or fire information here:

ADDITIONAL VEHICLE INFORMATION

<p>IF THIS VEHICLE HAS NOT BEEN INSPECTED ASK THIS QUESTION:</p> <p>What is the year, make and model of your vehicle?</p>	<p>Year: 19 <u>95</u></p> <p>Make: <u>Plymouth</u></p> <p>Model: <u>VOYAGER (6BRAND)</u></p>
Was there any damage to the vehicle that is not related to this crash?	<p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes - describe:</p> <p><input type="checkbox"/> Unknown</p>
Did any of the doors or hatch come open during the crash?	<p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes - describe:</p> <p><input type="checkbox"/> Unknown</p>
Did any of the windows break during the crash?	<p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes - describe:</p> <p><input type="checkbox"/> Unknown</p>
Were any windows open (O) or partially open (P) prior to the crash?	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes* * "O" = open "P" = partially open</p> <p><input type="checkbox"/> WS <input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR</p> <p><input type="checkbox"/> BL <input type="checkbox"/> Roof <input type="checkbox"/> Other</p> <p><input type="checkbox"/> Unknown</p>
Did the glove compartment door come open during the crash?	<p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes - describe:</p> <p><input type="checkbox"/> Unknown</p>
Was there any cargo in the vehicle at the time of the crash?	<p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes - describe:</p> <p>Approximate weight - _____ pounds</p> <p><input type="checkbox"/> Unknown</p>
Approximate mileage on the vehicle?	<p>_____ miles</p> <p><input type="checkbox"/> Unknown</p>
<p>If you have not inspected the vehicle, or permission is needed, ask if you may look at their vehicle to assess the damage and ascertain the following:</p>	<p>Current location of the vehicle:</p> <p>Contact person:</p>

Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location here:

SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION

Do you recall the type of development in the area of the crash?	<input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Undeveloped <input type="checkbox"/> School <input type="checkbox"/> Other: _____
What were the weather conditions at the time of the crash?	<input type="checkbox"/> Clear (no clouds, no precipitation) <input type="checkbox"/> Cloudy (partially cloudy, no precipitation) <input type="checkbox"/> Overcast (full cloud cover, no precipitation) <input checked="" type="checkbox"/> Precipitating <input type="checkbox"/> Unknown
What was the type of precipitation?	<input type="checkbox"/> No precipitation <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Raining MISTY <input type="checkbox"/> Freezing rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snowing <input type="checkbox"/> Hailing
What was the condition of the road surface?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snowy, slushy <input type="checkbox"/> Icy <input type="checkbox"/> Other (e.g., sand, dirt, oil on surface, etc.) <input type="checkbox"/> Unknown
How would you describe the amount of traffic at the time of the crash?	<input type="checkbox"/> Heavy <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Light <input type="checkbox"/> No other traffic present
What is your occupation?	<input checked="" type="checkbox"/> Professional <input type="checkbox"/> Technical <input type="checkbox"/> Government official <input type="checkbox"/> Management <input type="checkbox"/> Proprietors <input type="checkbox"/> Sales <input type="checkbox"/> Clerical <input type="checkbox"/> Craftsman and foreman <input type="checkbox"/> Service worker <input type="checkbox"/> Student <input type="checkbox"/> Farmers and farm-managers <input type="checkbox"/> Farm labors and foreman <input type="checkbox"/> Private household worker <input checked="" type="checkbox"/> Housewife <input type="checkbox"/> Other: _____
How long have you driven this vehicle?	Years: _____ Months: <u>5</u> since new
How many miles do you think that you have driven it in the last 12-month period?	Miles: <u>2800</u> in <u>5</u> mos.
How often do you drive this particular roadway?	<input type="checkbox"/> Daily <input checked="" type="checkbox"/> Twice weekly <input type="checkbox"/> Once weekly <input type="checkbox"/> Twice monthly <input type="checkbox"/> Once monthly <input type="checkbox"/> Very infrequently <input type="checkbox"/> First time on road
Where were you coming from just prior to the crash?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input checked="" type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____
Where were you intending to go when the crash occurred?	<input checked="" type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____

was
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she is a
now

OCCUPANT DATA QUESTIONS

How many people were in your vehicle at the time of the crash?

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>3</u>
Where was this person sitting in the vehicle? Front Left (FL) Second Left (2L) Front Middle (FM) Second Middle (2M) Front Right (FR) Second Right (2R) Third Left (3L) Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT	FR	2L
What is the Sex, Height, Weight, and Age of each occupant?	<input type="checkbox"/> M <input checked="" type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: <u>5'6</u> WEIGHT: <u>130</u> AGE: <u>38</u>	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: <u>4'7"</u> WEIGHT: <u>65</u> AGE: <u>9</u>	<input type="checkbox"/> M <input checked="" type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: <u>5'1</u> WEIGHT: <u>85</u> AGE: <u>12</u>
Describe how occupant was seated A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above
Describe feet and hands/arms location just prior to impact (indicate all that apply) <u>FEET</u> A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown <u>HANDS / ARMS</u> F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed A	Indicate all letters that apply and further describe as needed A	Indicate all letters that apply and further describe as needed A
Describe any additional information here:			

OCCUPANT DATA CONTINUED ON NEXT PAGE

OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>3</u>
Was your / their back up against the seat back?	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat track, if so where was the seat located prior to impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input checked="" type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input checked="" type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat back, if so where was the seat back located prior to impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined
If this seat position has an adjustable seat back, where was the seat back located after impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown

Did this vehicle have a cellular phone in it during the crash?

☒ No☐ Yes - describe type: _____
(e.g., portable, mounted in vehicle, flip phone, etc.)☐ Unknown*(Note to researcher: try to determine any driver distractions without implying fault)*

Was the driver doing any of the following? (check all that apply - and specify)

- ☒ Talking to or listening to another occupant (specify):
☐ Was there a moving object in vehicle (specify):
☐ Talking or listening on a cellular phone (specify):
☐ Dialing a cellular phone (specify):
☐ Adjusting climate control (specify):
☐ Adjusting radio, CD or cassette player (specify):
☐ Using other device or object in vehicle (specify):
☐ Sleepy / asleep (specify):
☐ Distracted by outside person, object, or event (specify):
☐ Eating or drinking (specify):
☐ Smoking related (specify):
☐ Other (specify):
☐ Unknown

*GAVE verbal warning
of imminent crash*

Describe any additional information here:

RESTRAINT INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>3</u>
Describe the seat belt available for the seat position NOTE: If a belt is not available for a seat position – describe if removed or not functional.	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):
Do any of the belts attach to the floor such that when the door is opened the belt travels with the door?	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
Were you [and other occupant(s)] wearing a seat belt during the accident?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown
SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN			
What type of belt were you [and other occupant(s)] wearing?	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown
How was the lap belt situated?	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):
How was the shoulder belt situated?	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):
Describe any breaks, tears, or failures to any of the seat belts:			

EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>3</u>
Was any part of your body thrown outside the vehicle during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
Was anyone pinned in the vehicle?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment
How did you [and other occupant(s)] exit the vehicle?	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input checked="" type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input checked="" type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input checked="" type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown

Further describe any ejection, entrapment, or mobility information here:

AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☒ YES (IF "YES" COMPLETE THIS SECTION)☐ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # <u>1</u>	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # <u>2</u>	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # <u>3</u>
Had this vehicle been in any previous crashes? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED
Type of air bag?	<input checked="" type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
Had any prior maintenance / service been performed on the air bag system?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Did the air bag inflate during this crash?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Was the person in this position wearing any type of eye-wear? (Eyeglasses, sunglasses, contact lenses)	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Yes - Specify: <u>CONTACT Lenses</u>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Yes - Specify: <u>GLASSES</u>
Was the air bag in this position contacted by another occupant?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:

CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☐ YES (IF "YES" COMPLETE THIS SECTION)☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Manufacturer and model of the safety seat?			
Type of safety seat?		<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
What direction was it facing prior to the crash?		<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
Was a seat belt used to hold the seat in place?		<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
How was the seat belt secured to the child seat?		<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
What was the safety seat equipped with at time of purchase?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
Were any of these added after they owned the safety seat?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

Describe any additional information here:

INJURY INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>3</u>
Were you (or any other occupants) injured? <i>> If "YES" go to manikin page and record injuries in detail</i> <i>> If "NO" ask next questions</i>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Did you (or any other occupants) receive any of the following: <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input type="checkbox"/> Cuts <input checked="" type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input checked="" type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input checked="" type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):
PLEASE CHECKED/YES TO THE MANIKIN PAGE(S)			
Did you (or any other occupants) receive any medical treatment? <i>(check all that apply)</i>	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input checked="" type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input checked="" type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
Were you (or any other occupants) hospitalized?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - number of days <u>1</u> <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
Were you (or any other occupants) treated and released from the emergency room?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Name of medical treatment facility?	<u>2 PVT Doctors</u>	<u>HOSP</u>	
Have you (or any other occupants) received any follow-up treatment?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown
Have you (or any other occupants) lost any days from work or school (college) due to the crash?	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input checked="" type="checkbox"/> Yes - number of days <u>Resigned</u> <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
IF REQUIRED: Will you sign a medical release? <i>* If not an in-person interview, make appointment to have release signed</i>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown <i>per Lawyer</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown
	DATE: _____ TIME: _____ PLACE: _____	DATE: _____ TIME: _____ PLACE: _____	DATE: _____ TIME: _____ PLACE: _____

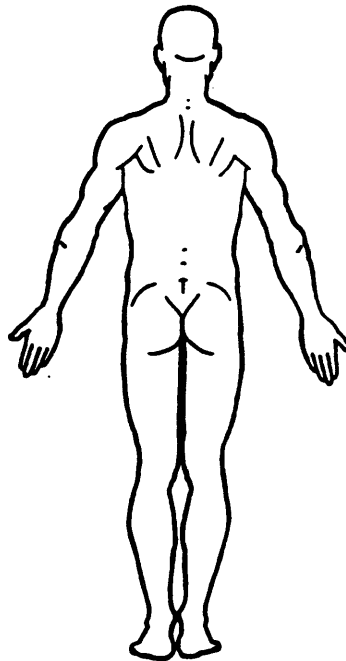
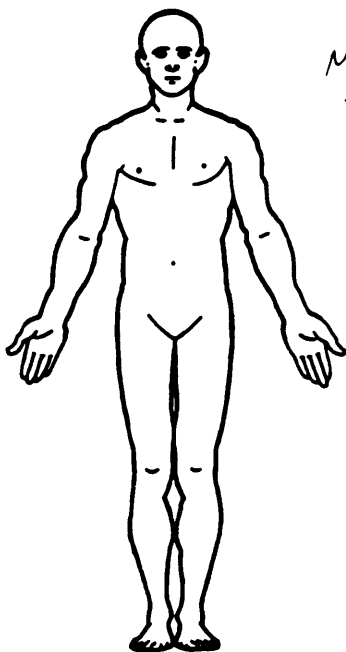
PSU Number 10 Case Number—Stratum 9508 Vehicle Number 01 Occupant Number 01

INJURY DATA FROM INTERVIEWEE(S)

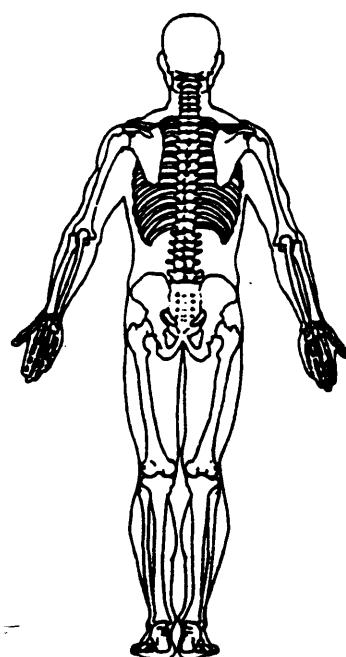
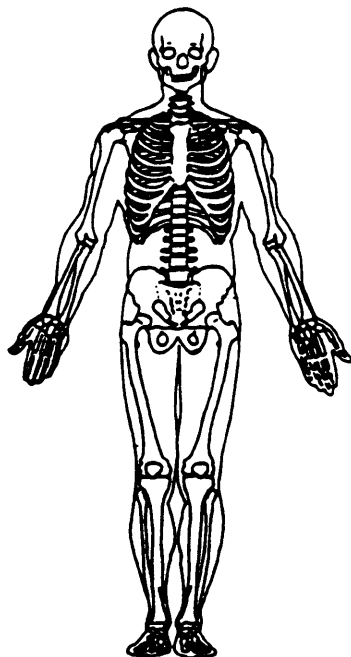
Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____DRIVER

SOFT TISSUE/INTERNAL INJURIES

MINOR FACIAL
ABRASIONS TO
NOSE & below
AIR bag



SKELETAL INJURIES



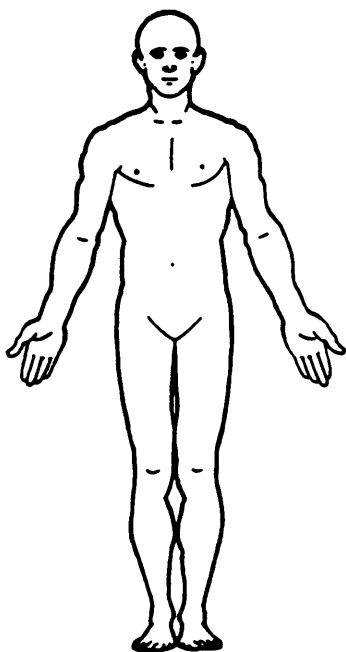
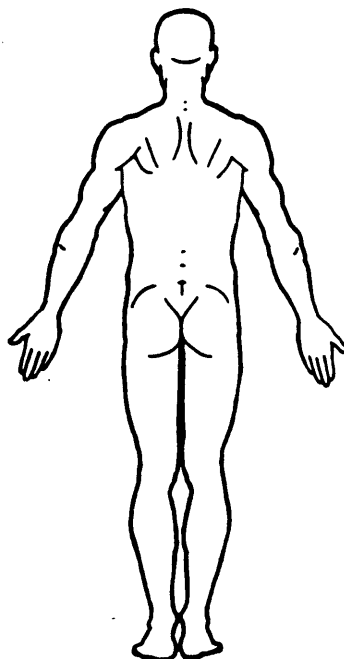
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10 Case Number—Stratum 9508 Vehicle Number 01 Occupant Number 02

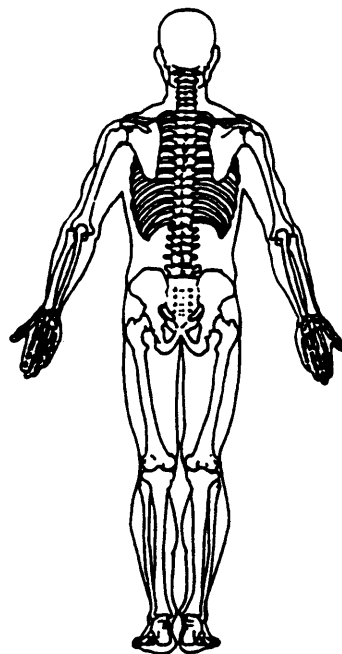
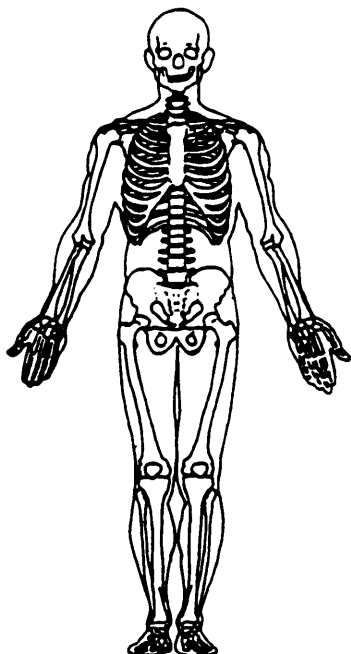
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): DRIVER

SOFT TISSUE/INTERNAL INJURIES

FATALY
injured

SKELETAL INJURIES



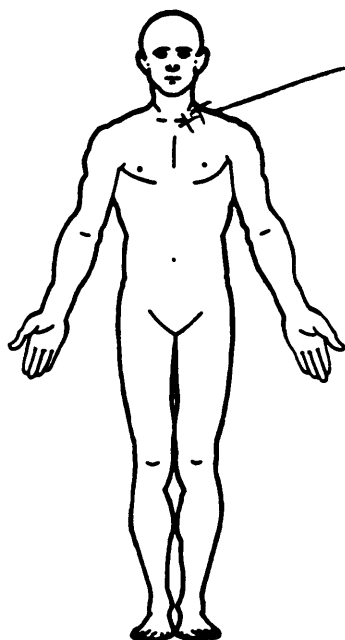
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10 Case Number-Stratum 9508 Vehicle Number 01 Occupant Number 03

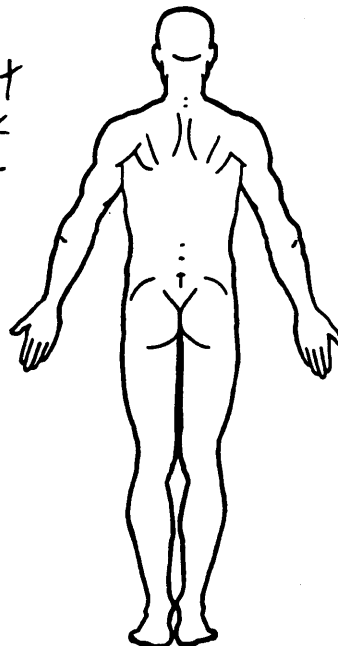
INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER/MOM

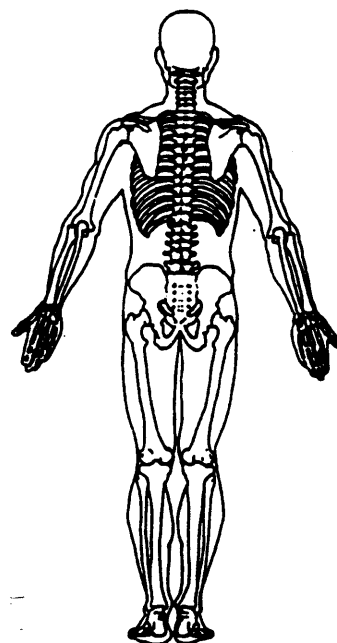
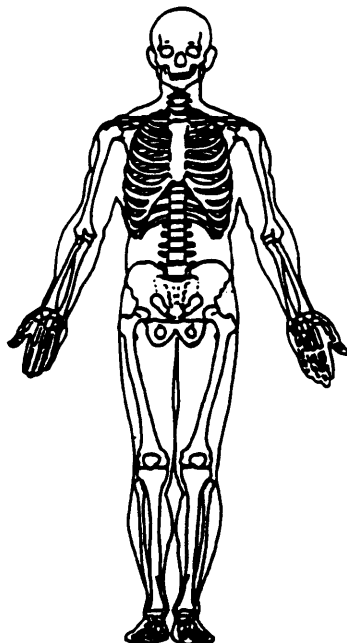
SOFT TISSUE/INTERNAL INJURIES



3-4cm
BRUISING
upper chest
@ base of neck
seat belt



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).



INTERVIEW FORM SUPPLEMENT

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s): <u>Mother /</u>
2. Case Number - Stratum <u>9508</u>	<u>DRIVER</u>
3. Vehicle Number <u>01</u>	

OCCUPANT DATA QUESTIONS

	OCCUPANT # <u>4</u>	OCCUPANT # _____	OCCUPANT # _____
Where was this person sitting in the vehicle? Front Left (FL) Second Left (2L) Front Middle (FM) Second Middle (2M) Front Right (FR) Second Right (2R) Third Left (3L) Other: Third Middle (3M) (SPECIFY in block) Third Right (3R)	<u>2R</u>		
What is the Sex, Height, Weight, and Age of each occupant?	<input type="checkbox"/> M <input checked="" type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: <u>3' 7"</u> WEIGHT: <u>40</u> AGE: <u>4</u>	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: _____ WEIGHT: _____ AGE: _____	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: _____ WEIGHT: _____ AGE: _____
Describe how occupant was seated A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above

Describe any additional information here:

OCCUPANT DATA QUESTIONS (continued)

	OCCUPANT # <u>4</u>	OCCUPANT # ____	OCCUPANT # ____
<p>Describe feet and hands/arms location just prior to impact (indicate all that apply)</p> <p style="text-align: center;">FEET</p> <p>A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown</p> <p style="text-align: center;">HANDS / ARMS</p> <p>F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown</p>	<p>Indicate all letters that apply and further describe as needed</p> <p>Hanging down</p> <p>K</p>	<p>Indicate all letters that apply and further describe as needed</p>	<p>Indicate all letters that apply and further describe as needed</p>
Was your / their back up against the seat back?	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat <i>track</i> , if so where was the seat located prior to impact?	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat <i>back</i> , if so where was the seat <i>back</i> located prior to impact?	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined
If this seat position has an adjustable seat <i>back</i> , where was the seat <i>back</i> located after impact?	<input checked="" type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown

RESTRAINT INFORMATION			
	OCCUPANT # <u>4</u>	OCCUPANT # <u> </u>	OCCUPANT # <u> </u>
Describe the seat belt available for the seat position NOTE: If a belt is not available for a seat position -- describe if removed or not functional.	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
** SKIP THESE QUESTIONS FOR REAR SEATED OCCUPANTS ** Do any of the belts move along a motorized track for this seat?	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):
Do any of the belts attach to the door such that when the door is opened the belt travels with the door?	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
Were you [and other occupant(s)] wearing a seat belt during the accident?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN			
What type of belt were you [and other occupant(s)] wearing?	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown
How was the lap belt situated?	<input checked="" type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown	<input type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown	<input type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown
How was the shoulder belt situated?	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input checked="" type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):
Describe any breaks, tears, or failures to any of the seat belts:			

EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	OCCUPANT # <u>4</u>	OCCUPANT # <u> </u>	OCCUPANT # <u> </u>
Was any part of your body thrown outside the vehicle during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
Was anyone pinned in the vehicle?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment
How did you [and other occupant(s)] exit the vehicle?	<input type="checkbox"/> Fatal before removed <input checked="" type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown

Further describe any ejection, entrapment, or mobility information here:

AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☐ YES (IF "YES" COMPLETE THIS SECTION)

☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # _____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # _____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # _____
Had this vehicle been in any previous crashes? <input type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF NOT REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF NOT REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF NOT REINSTALLED
Type of air bag?	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
Had any prior maintenance / service been performed on the air bag system?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Did the air bag inflate during this crash?	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Was the person in this position wearing any type of eye-wear? (Eyeglasses, sunglasses, contact lenses)	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Was the air bag in this position contacted by another occupant?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:

CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☐ YES (IF "YES" COMPLETE THIS SECTION)

☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	OCCUPANT # ____	OCCUPANT # ____	OCCUPANT # ____
Manufacturer and model of the safety seat?			
Type of safety seat?	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
What direction was it facing prior to the crash?	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
Was a seat belt used to hold the seat in place?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
How was the seat belt secured to the child seat?	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
What was the safety seat equipped with at time of purchase?	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
Were any of these added after they owned the safety seat?	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

Describe any additional information here:

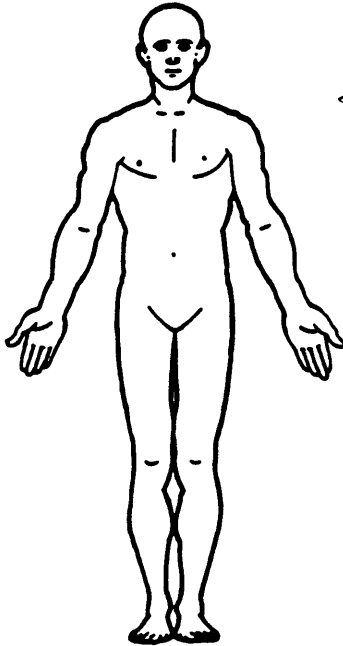
INJURY INFORMATION			
	OCCUPANT # <u>4</u>	OCCUPANT # <u> </u>	OCCUPANT # <u> </u>
Were you (or any other occupants) injured? <i>► If "YES" go to manikin page and record injuries in detail</i> <i>► If "NO" ask next questions</i>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Did you (or any other occupants) receive any of the following: <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):
IF OCCUPANT(S) SUSPECTED OF INJURIES, ANY BOXES CHECKED? DETAIL INJURY LOCATION, LESION, AND SOURCE ON THE MANIKIN PAGE(S)			
Did you (or any other occupants) receive any medical treatment? <i>NO</i> (check all that apply)	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
Were you (or any other occupants) hospitalized?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown
Were you (or any other occupants) treated and released from the emergency room?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Name of medical treatment facility?			
Have you (or any other occupants) received any follow-up treatment?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown
Have you (or any other occupants) lost any days from work or school (college) due to the crash?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown
IF REQUIRED: Will you sign a medical release? <i>* If not an in-person interview, make appointment to have release signed</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____

PSU Number 10 Case Number—Stratum 9508 Vehicle Number 01 Occupant Number 04

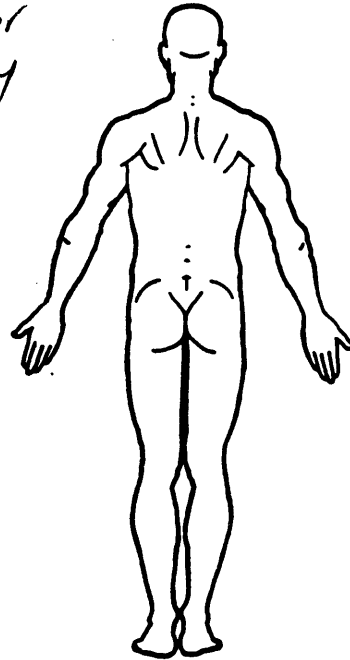
INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): MOTHER/DRIVER

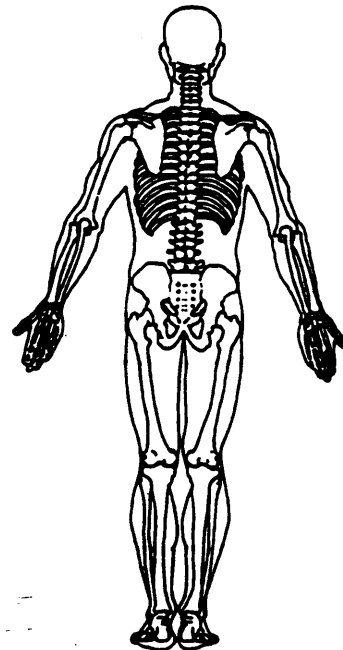
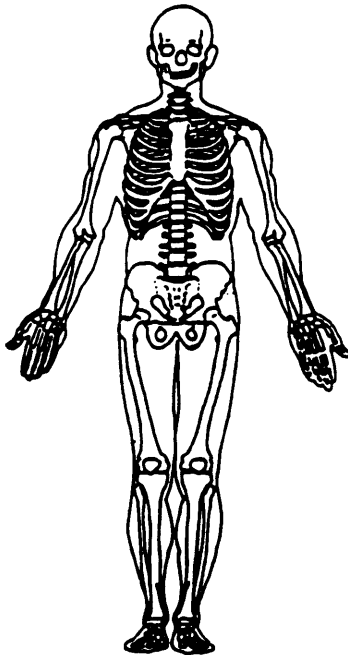
SOFT TISSUE/INTERNAL INJURIES



Don't remember
any. possibly
1 on thigh
UNK



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

Appendix G:

NASS CDS INTERVIEW FORM:

VEHICLE #2 DRIVER



INTERVIEW FORM (A)

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s): _____
2. Case Number - Stratum <u>9508</u>	<u>DRIVER of V2</u>
3. Vehicle Number <u>02</u>	_____

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

I was EAST bound the ROAD was WET
As I hit brakes for stop sign. I slid
forward past sign into intersection. I saw then
I kept on braking and steered to the Right.
Impact Knocked me off to the Right
I got out of car ran over to VAN
driver side and asked if everyone OK
boy in pass looked Knockout I went around
to take a look.

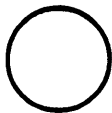
OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

Q Do you recall if the Front (R) pass that was
Knocked out was wearing his seatbelt.

A) to the best of my recollection YES. I am pretty
positive he was wearing it.

ACCIDENT DIAGRAM



NORTH

The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

CRASH DATA INFORMATION

IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:

SOURCE OF INFORMATION:	<input checked="" type="checkbox"/> Driver <input type="checkbox"/> Other occupant <input type="checkbox"/> Relative/friend
In which direction were you traveling?	<input type="checkbox"/> North <input type="checkbox"/> South <input type="checkbox"/> East <input type="checkbox"/> West (Or where were they coming from or going to?)
What lane were you in?	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> Other Note: lane 1 is the right curb lane
What was the condition of the roadway?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snow <input type="checkbox"/> Slush <input type="checkbox"/> Ice <input type="checkbox"/> Sand, dirt, oil <input type="checkbox"/> Other (specify):
What was the weather like? (Check all that apply)	<input type="checkbox"/> No adverse conditions <i>DRIZZLE</i> <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Hail <input type="checkbox"/> Snow <input type="checkbox"/> Other (specify):
Was there any type of sign or signal present? (check all that apply)	<input type="checkbox"/> Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) <input checked="" type="checkbox"/> Stop sign <input type="checkbox"/> Yield sign <input type="checkbox"/> School zone sign <input type="checkbox"/> Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: _____ <input type="checkbox"/> Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: _____ <input type="checkbox"/> Miscellaneous control (including railroad controls) specify: _____ <input type="checkbox"/> None <input type="checkbox"/> Unknown
If a traffic control device was present, was it functioning properly at the time of the crash?	<input type="checkbox"/> No traffic control device present <input type="checkbox"/> Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: _____ <input checked="" type="checkbox"/> Functioning properly <input type="checkbox"/> Unknown
Can you estimate your travel speed before the crash? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input checked="" type="checkbox"/> 21-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> 41-50 <input type="checkbox"/> 51-60 <input type="checkbox"/> 61-70 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> Unknown
Just before the crash, what were you doing or intending to do? (check all that apply)	<input checked="" type="checkbox"/> Going straight <input type="checkbox"/> Stopped <input type="checkbox"/> Turning left <input type="checkbox"/> Turning right <input type="checkbox"/> Slowing <input type="checkbox"/> Accelerating <input type="checkbox"/> Backing <input type="checkbox"/> Changing lanes to right <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Changing lanes to left
Did vehicle lose control due to weather or mechanical problems?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Yes (describe) <i>slid on wet & oily street</i>
Did driver take avoidance actions? <input checked="" type="checkbox"/> Yes (Check all that apply) → <input type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Braking with lock-up <input type="checkbox"/> Accelerating <input type="checkbox"/> Other (specify): _____ <input checked="" type="checkbox"/> Braking without lock-up <input type="checkbox"/> Steering left <input type="checkbox"/> Releasing brakes <input checked="" type="checkbox"/> Steering right
Where was vehicle at time of collision?	<input type="checkbox"/> Original travel lane <input type="checkbox"/> Different travel lane <input type="checkbox"/> In intersection <input type="checkbox"/> Off roadway to right <input type="checkbox"/> Off roadway to left <input type="checkbox"/> Other (specify): _____
Can you estimate your travel speed at the time of collision? (in mph)	<input type="checkbox"/> Stopped <input checked="" type="checkbox"/> 11-20 <input type="checkbox"/> 21-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> 41-50 <input type="checkbox"/> 51-60 <input type="checkbox"/> 61-70 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> Unknown
Describe all the impacts to the vehicle, including what the vehicle contacted) and how this vehicle moved to its stopped position, after the collision?	
What race does the driver consider themselves?	<input checked="" type="checkbox"/> White <input type="checkbox"/> American Indian, Eskimo or Aleut, Asian or Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
Is the driver of Hispanic origin?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

VEHICLE INFORMATION

ROLLOVER DATA

DID THIS VEHICLE ROLL OVER DURING THE CRASH?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS
☒ NO - - SKIP TO "FIRE DATA" BELOW
☐ UNKNOWN - - SKIP TO "FIRE DATA" BELOW

Describe where the rollover began	<input type="checkbox"/> On roadway <input type="checkbox"/> On shoulder <input type="checkbox"/> On roadside or median <input type="checkbox"/> Unknown
What caused the vehicle to roll over?	<input type="checkbox"/> Other vehicle (specify vehicle number) _____ <input type="checkbox"/> Contact to object (specify): _____ <input type="checkbox"/> Other cause (specify): _____ <input type="checkbox"/> Unknown
Which direction did the vehicle roll?	<input type="checkbox"/> Toward the right (passenger side) <input type="checkbox"/> Toward the left (driver side) <input type="checkbox"/> End-over-end <input type="checkbox"/> Unknown
Estimate the number of quarter turns (each side) or complete turns (4 quarter turns) the vehicle did	_____ Number of quarter turns <input type="checkbox"/> Unknown _____ Number of complete turns
When the vehicle stopped rolling over, which side was in contact with the ground?	<input type="checkbox"/> Left side <input type="checkbox"/> Top <input type="checkbox"/> Right side <input type="checkbox"/> Wheels <input type="checkbox"/> Unknown

FIRE DATA

DID THIS VEHICLE EXPERIENCE A FIRE?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS
☒ NO - - SKIP THIS SECTION
☐ UNKNOWN - - SKIP THIS SECTION

Describe where the fire started, or where the smoke was first seen	<input type="checkbox"/> Under the hood <input type="checkbox"/> In the trunk/cargo area <input type="checkbox"/> Behind the instrument panel <input type="checkbox"/> Under the vehicle <input type="checkbox"/> In the passenger compartment <input type="checkbox"/> From other involved vehicle <input type="checkbox"/> Unknown
Did the fire start with the electrical system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
Did the fire start with the fuel system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
ASK IF THE FIRE INVOLVED THE FUEL SYSTEM Which part of the fuel system may have been involved?	<input type="checkbox"/> Fuel tank <input type="checkbox"/> Fuel lines <input type="checkbox"/> Engine compartment (specify component if known) <input type="checkbox"/> Unknown

Describe any additional rollover or fire information here:

ADDITIONAL VEHICLE INFORMATION

<p>IF THIS VEHICLE HAS NOT BEEN INSPECTED ASK THIS QUESTION:</p> <p>What is the year, make and model of your vehicle?</p>	<p>Year: 19 <u>85</u></p> <p>Make: <u>Chevrolet</u></p> <p>Model: <u>Suburban</u></p>	
<p>Was there any damage to the vehicle that is not related to this crash?</p>	<p><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input type="checkbox"/> Unknown</p>	
<p>Did any of the doors or hatch come open during the crash?</p>	<p><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input type="checkbox"/> Unknown</p>	
<p>Did any of the windows break during the crash?</p>	<p><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input type="checkbox"/> Unknown</p>	
<p>Were any windows open (O) or partially open (P) prior to the crash?</p>	<p><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes* * "O" = open "P" = partially open</p> <p><input type="checkbox"/> WS <input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR <input type="checkbox"/> BL <input type="checkbox"/> Roof <input type="checkbox"/> Other</p> <p><input type="checkbox"/> Unknown</p>	
<p>Did the glove compartment door come open during the crash?</p>	<p><input type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input checked="" type="checkbox"/> Unknown</p>	
<p>Was there any cargo in the vehicle at the time of the crash?</p>	<p><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: <p>Approximate weight - _____ pounds</p> <input type="checkbox"/> Unknown</p>	
<p>Approximate mileage on the vehicle?</p>	<p>_____ miles <input checked="" type="checkbox"/> Unknown</p>	
<p>If you have not inspected the vehicle, or permission is needed, ask if you may look at their vehicle to assess the damage and ascertain the following:</p>	<p>Current location of the vehicle: _____</p> <p>Contact person: _____</p>	
<p>Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location here:</p>		

SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION	
Do you recall the type of development in the area of the crash?	<input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Undeveloped <input type="checkbox"/> School <input type="checkbox"/> Other: _____
What were the weather conditions at the time of the crash?	<input type="checkbox"/> Clear (no clouds, no precipitation) <input type="checkbox"/> Cloudy (partially cloudy, no precipitation) <input type="checkbox"/> Overcast (full cloud cover, no precipitation) <input type="checkbox"/> Precipitating <input type="checkbox"/> Unknown
What was the type of precipitation?	<input type="checkbox"/> No precipitation <input type="checkbox"/> Unknown <input type="checkbox"/> Raining <input type="checkbox"/> Freezing rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snowing <input type="checkbox"/> Hailing
What was the condition of the road surface?	<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Snowy, slushy <input type="checkbox"/> Icy <input type="checkbox"/> Other (e.g., sand, dirt, oil on surface, etc.) <input type="checkbox"/> Unknown
How would you describe the amount of traffic at the time of the crash?	<input type="checkbox"/> Heavy <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Light <input type="checkbox"/> No other traffic present
What is your occupation?	<input type="checkbox"/> Professional <input type="checkbox"/> Technical <input type="checkbox"/> Government official <input type="checkbox"/> Management <input type="checkbox"/> Proprietors <input type="checkbox"/> Sales <input type="checkbox"/> Clerical <input type="checkbox"/> Craftsman and foreman <input type="checkbox"/> Service worker <input checked="" type="checkbox"/> Student <input type="checkbox"/> Farmers and farm-managers <input type="checkbox"/> Farm labors and foreman <input type="checkbox"/> Private household worker <input type="checkbox"/> Housewife <input type="checkbox"/> Other: _____
How long have you driven this vehicle?	Years: <u>2</u> Months: _____
How many miles do you think that you have driven in the last 12-month period?	Miles: _____ <u>75 miles wk ~ 7,800 miles</u>
How often do you drive this particular roadway?	<input type="checkbox"/> Daily <input checked="" type="checkbox"/> Twice weekly <input type="checkbox"/> Once weekly <input type="checkbox"/> Twice monthly <input type="checkbox"/> Once monthly <input type="checkbox"/> Very infrequently <input type="checkbox"/> First time on road
Where were you coming from just prior to the crash?	<input checked="" type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____
Where were you intending to go when the crash occurred?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input checked="" type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: <u>girl friend's</u>

OCCUPANT DATA QUESTIONS

How many people were in your vehicle at the time of the crash?

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Where was this person sitting in the vehicle? Front Left (FL) Second Left (2L) Front Middle (FM) Second Middle (2M) Front Right (FR) Second Right (2R) Third Left (3L) Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT		
What is the Sex, Height, Weight, and Age of each occupant?	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: <u>5'10"</u> WEIGHT: <u>155</u> AGE: <u>18</u>	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: ____ WEIGHT: ____ AGE: ____	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: ____ WEIGHT: ____ AGE: ____
Describe how occupant was seated A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above
Describe feet and hands/arms location just prior to impact (indicate all that apply) <u>FEET</u> A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown <u>HANDS / ARMS</u> F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed <u>A on floor</u> <u>ⓐ on brake</u> <u>F</u>	Indicate all letters that apply and further describe as needed	Indicate all letters that apply and further describe as needed

Describe any additional information here:

OCCUPANT DATA CONTINUED ON NEXT PAGE

OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Was your / their back up against the seat back?	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat track, if so where was the seat located prior to impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input checked="" type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat back, if so where was the seat back located prior to impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input checked="" type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined
If this seat position has an adjustable seat back, where was the seat back located after impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown

Did this vehicle have a cellular phone in it during the crash?

☒ No☐ Yes - describe type: _____
(e.g., portable, mounted in vehicle, flip phone, etc.)☐ Unknown*(Note to researcher: try to determine any driver distractions without implying fault)*

Was the driver doing any of the following? (check all that apply - and specify)

- ☐ Talking to or listening to another occupant (specify):
☐ Was there a moving object in vehicle (specify):
☐ Talking or listening on a cellular phone (specify):
☐ Dialing a cellular phone (specify):
☐ Adjusting climate control (specify):
☐ Adjusting radio, CD or cassette player (specify):
☐ Using other device or object in vehicle (specify):
☐ Sleepy / asleep (specify):
☐ Distracted by outside person, object, or event (specify):
☐ Eating or drinking (specify):
☐ Smoking related (specify):
☐ Other (specify):
☒ Unknown

Describe any additional information here:

RESTRAINT INFORMATION

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Describe the seat belt available for the seat position NOTE: If a belt is not available for a seat position — describe if removed or not functional.	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", were they working properly? <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):
	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes * * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
Were you [and other occupant(s)] wearing a seat belt during the accident?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <i>I think so</i> <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN

What type of belt were you [and other occupant(s)] wearing?	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown
How was the lap belt situated?	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):
How was the shoulder belt situated?	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):

Describe any breaks, tears, or failures to any of the seat belts:

EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Was any part of your body thrown outside the vehicle during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
Was anyone pinned in the vehicle?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment
How did you [and other occupant(s)] exit the vehicle?	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input checked="" type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown

Further describe any ejection, entrapment, or mobility information here:

AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☐ YES (IF "YES" COMPLETE THIS SECTION)

☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # ____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # ____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # ____
Had this vehicle been in any previous crashes? <input type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED
Type of air bag?	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
Had any prior maintenance / service been performed on the air bag system?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Did the air bag inflate during this crash?	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Was the person in this position wearing any type of eye-wear? (Eyeglasses, sunglasses, contact lenses)	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Was the air bag in this position contacted by another occupant?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:

CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☐ YES (IF "YES" COMPLETE THIS SECTION)☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Manufacturer and model of the safety seat?			
Type of safety seat?		<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
What direction was it facing prior to the crash?		<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
Was a seat belt used to hold the seat in place?		<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
How was the seat belt secured to the child seat?		<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
What was the safety seat equipped with at time of purchase?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
Were any of these added after they owned the safety seat?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

Describe any additional information here:

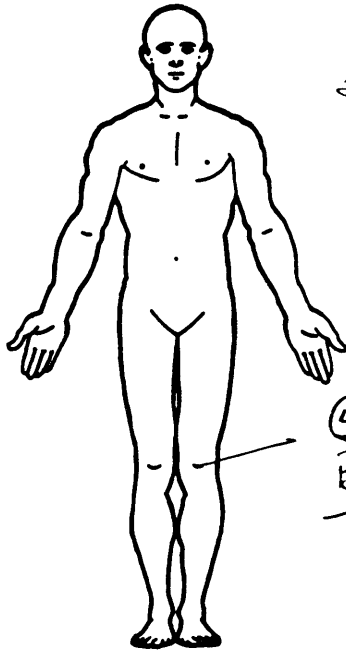
INJURY INFORMATION			
	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Were you (or any other occupants) injured? > If "YES" go to manikin page and record injuries in detail > If "NO" ask next questions	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Did you (or any other occupants) receive any of the following: <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input checked="" type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):
IF CHECKED, GO TO THE MANIKIN PAGE(S)			
Did you (or any other occupants) receive any medical treatment? (check all that apply)	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input checked="" type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
Were you (or any other occupants) hospitalized?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
Were you (or any other occupants) treated and released from the emergency room?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Name of medical treatment facility?			
Have you (or any other occupants) received any follow-up treatment?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown
Have you (or any other occupants) lost any days from work or school (college) due to the crash?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
IF REQUIRED: Will you sign a medical release? * If not an in-person interview, make appointment to have release signed	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____

PSU Number 10Case Number-Stratum 9508Vehicle Number 02Occupant Number 01

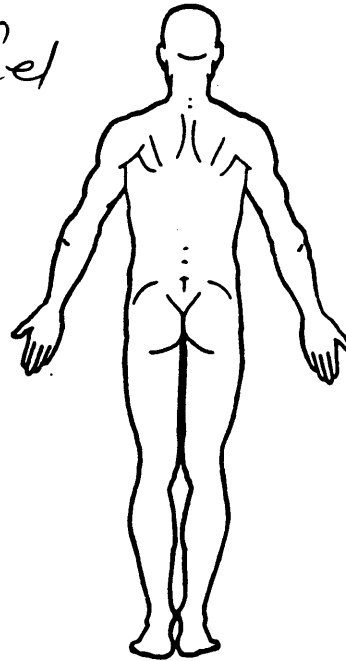
INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER

SOFT TISSUE/INTERNAL INJURIES

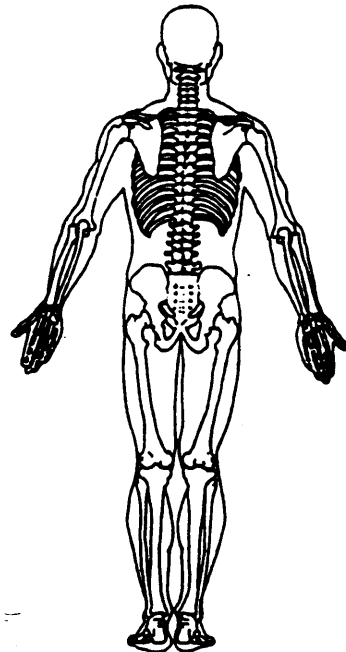
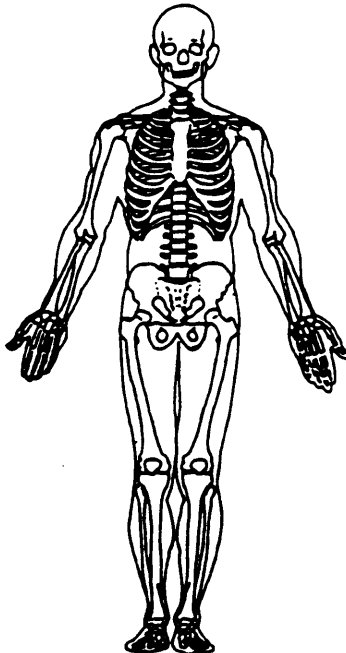


Hit face on
steering wheel
but no
injuries



Ⓛ Knee
Bruised
Dash

SKELETAL INJURIES



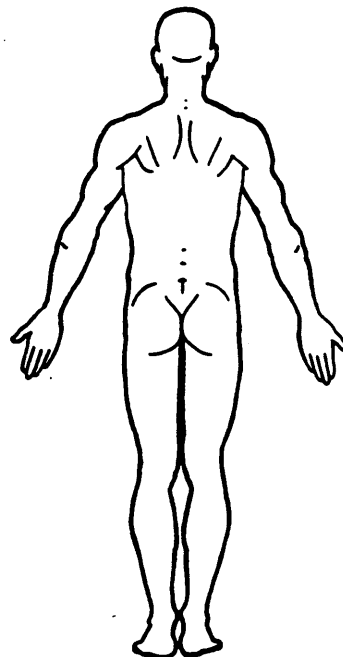
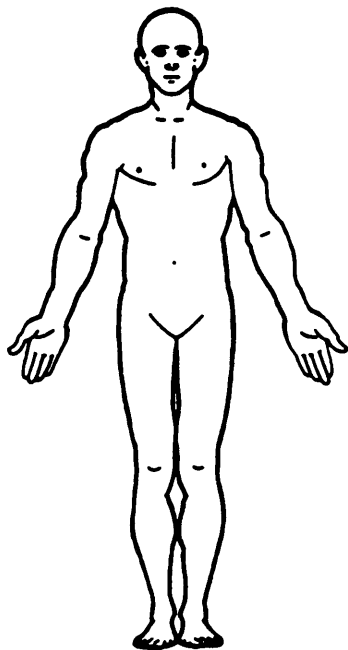
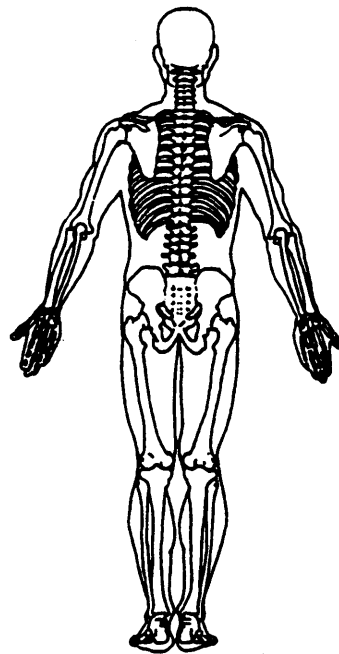
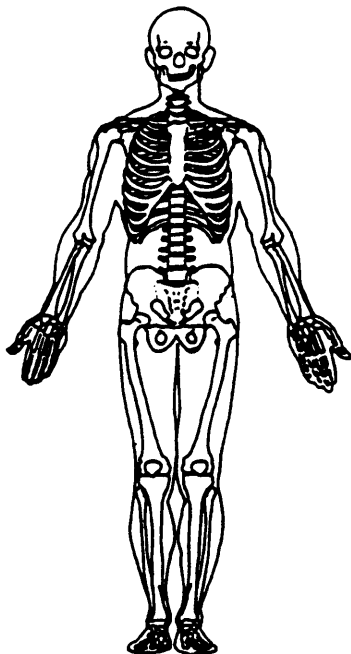
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10

Case Number—Stratum _____

Vehicle Number _____

Occupant Number _____

INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

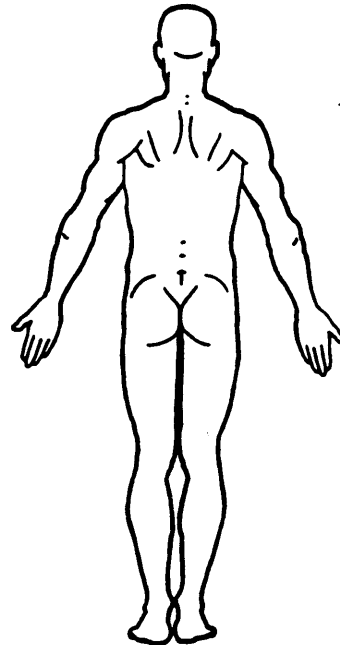
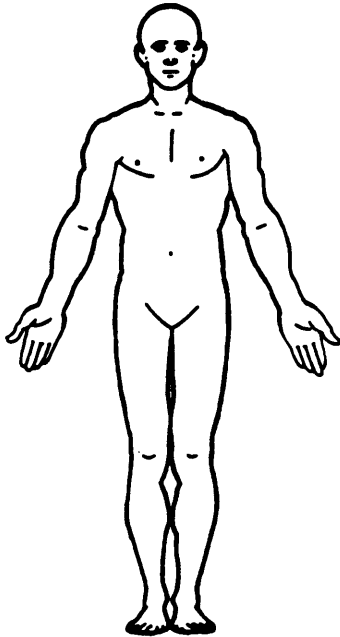
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 1 / 0 Case Number—Stratum Vehicle Number Occupant Number

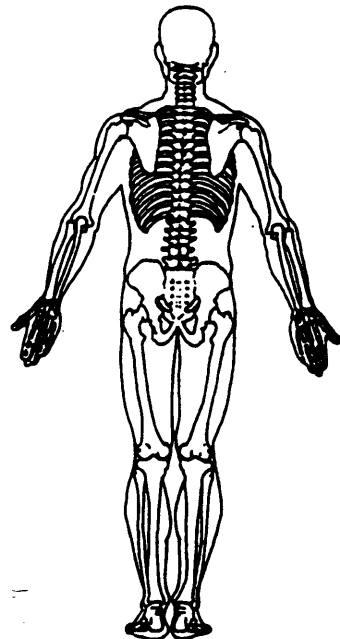
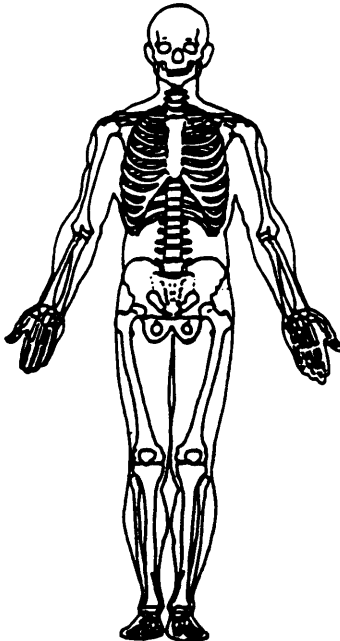
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

Appendix H:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE DRIVER



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

3. Vehicle Number

01

4. Occupant Number

01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

38

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

168

Code actual height to the nearest
centimeter.

(999) Unknown

66 inches X 2.54 = 167.64 centimeters

8. Occupant's Weight

059

Code actual weight to the nearest
kilogram.

(999) Unknown

130 pounds X .4536 = 58.9 kilograms

9. Occupant's Role

1

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

11

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility 4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes 1

During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 3

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes 0

During Accident

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):
 (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☐ Not equipped/not available/destroyed or rendered inoperative
☒ Vehicle inspection
☐ Official injury data
☐ Driver/occupant interview
☐ Other (specify):
☐ Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):
 (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify): _____
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available
Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify): _____
(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact +026

- (_000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_996) Deployment, unknown longitudinal Delta V
(_997) Not deployed
(_998) Unknown if deployed
(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

- (0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify): _____

- (95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION *continued*

HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage 01

- (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

- (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown

45. Was The Air Bag Tethered? 1

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):

(3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

46. Did The Air Bag Have Vent Ports? 2

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):

(3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

(3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

48. Was This Occupant Wearing Eye-wear? 3

- (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 1

- (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown

50. Seat Type (this Occupant Position) 02

- (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):

(9) Unknown

52. Seat Track Adjusted Position Prior To Impact 4

- (0) Occupant not seated or no seat
 (1) Non-adjustable seat track

Adjustable Seat Track

- (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 14

- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

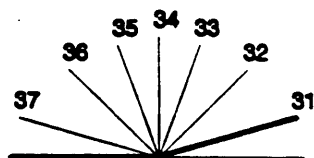
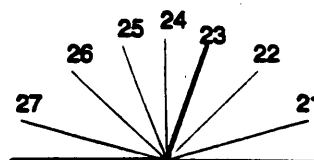
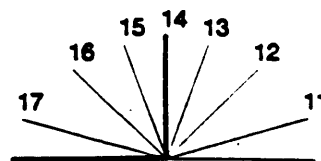
Slightly reclined prior to impact

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position

(99) Unknown

54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model

0 0 0

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat

0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation

0 0

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage

0 0

59. Child Safety Seat Shield Usage

0 0

60. Child Safety Seat Tether Usage

0 0Note: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)** 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 00

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 99

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

*Resigned***STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****66. Time to Death** 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death 00**68. 2nd Medically Reported Cause of Death** 00**69. 3rd Medically Reported Cause of Death** 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 02

2 Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

TRAUMA DATA**71. Glasgow Coma Scale (GCS) Score** 02

(at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

(1) No - blood not given

(2) Yes - blood given

(specify units):

(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 01

(00) Not injured

(01) Injured, ABGs not measured or reported

(02-50) Code the actual value of the HCO₃

(96) ABGs reported, HCO₃ unknown

(97) Injured, details unknown

(99) Unknown if injured

BELT USE DETERMINATION**74. Primary Source of Belt Use Determination** 1

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Vehicle inspection

(2) Official injury data

(3) Driver/occupant interview

(8) Other (specify):

(9) Unknown if belt used

Appendix I:

NASS CDS OCCUPANT INJURY FORM:

CASE VEHICLE DRIVER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9508

4. Occupant Number

01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90							Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect					
Abrasion nose 1st	5. <u>7</u>	6. <u>2</u>	7. <u>9</u>	8. <u>02</u>	9. <u>02</u>	10. <u>1</u>	11. <u>4</u>	12. <u>170</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
Abrasion face below nose 2nd	16. <u>7</u>	17. <u>2</u>	18. <u>9</u>	19. <u>02</u>	20. <u>02</u>	21. <u>1</u>	22. <u>8</u>	23. <u>170</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>
3rd	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>	33. <u> </u>	34. <u> </u>	35. <u> </u>	36. <u> </u>	37. <u> </u>
4th	38. <u> </u>	39. <u> </u>	40. <u> </u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>	47. <u> </u>	48. <u> </u>
5th	49. <u> </u>	50. <u> </u>	51. <u> </u>	52. <u> </u>	53. <u> </u>	54. <u> </u>	55. <u> </u>	56. <u> </u>	57. <u> </u>	58. <u> </u>	59. <u> </u>
6th	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>
7th	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>
8th	82. <u> </u>	83. <u> </u>	84. <u> </u>	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>
9th	93. <u> </u>	94. <u> </u>	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>
10th	104. <u> </u>	105. <u> </u>	106. <u> </u>	107. <u> </u>	108. <u> </u>	109. <u> </u>	110. <u> </u>	111. <u> </u>	112. <u> </u>	113. <u> </u>	114. <u> </u>

OCCUPANT INJURY DATA

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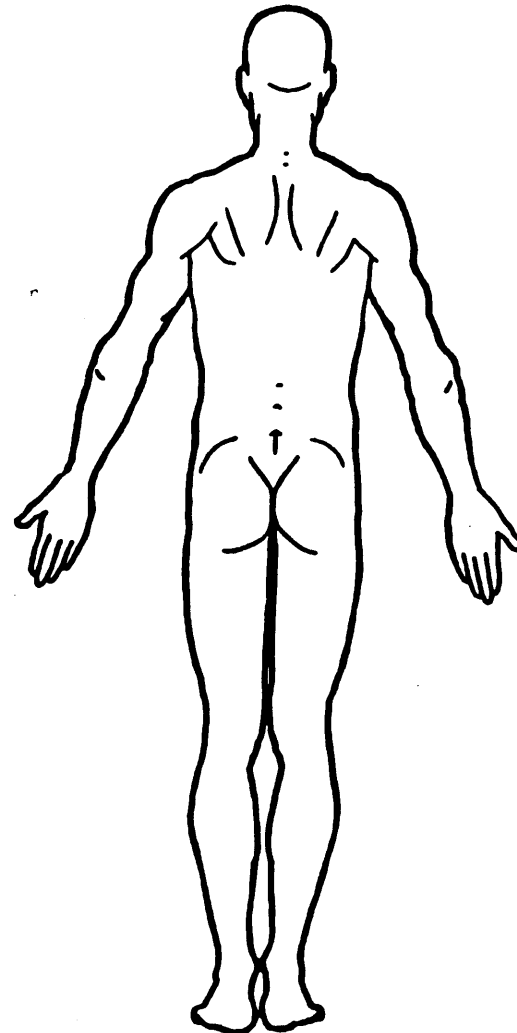
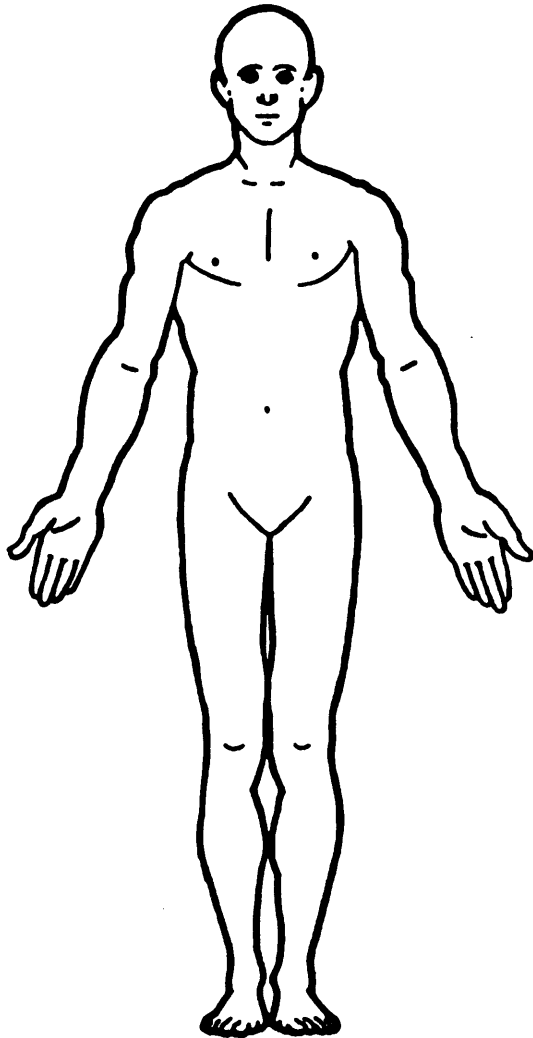
OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.	To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(4) Central
(5) Abdomen			(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY
<u>OFFICIAL RECORDS</u>		
(1) Autopsy records with or without hospital/medical records	(1) Certain	(1) Direct contact injury
(2) Hospital/medical records other than emergency room (e.g., discharge summary)	(2) Probable	(2) Indirect contact injury
(3) Emergency room records only (including associated X-rays or other lab reports)	(3) Possible	(3) Noncontact injury
(4) Private physician, walk-in or emergency clinic	(9) Unknown	(7) Injured, unknown source
<u>UNOFFICIAL RECORDS</u>		
(5) Lay coroner report		
(6) E.M.S. personnel		
(7) Interviewee		
(8) Other source (specify): _____		
(9) Police		

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☐ No

☐ Yes

Blood Alcohol
Level (mg/dl)

BAL = ____

Glasgow Coma
Scale Score

GCSS = ____

Units of Blood
Given

Units = ____

Arterial Blood
Gases

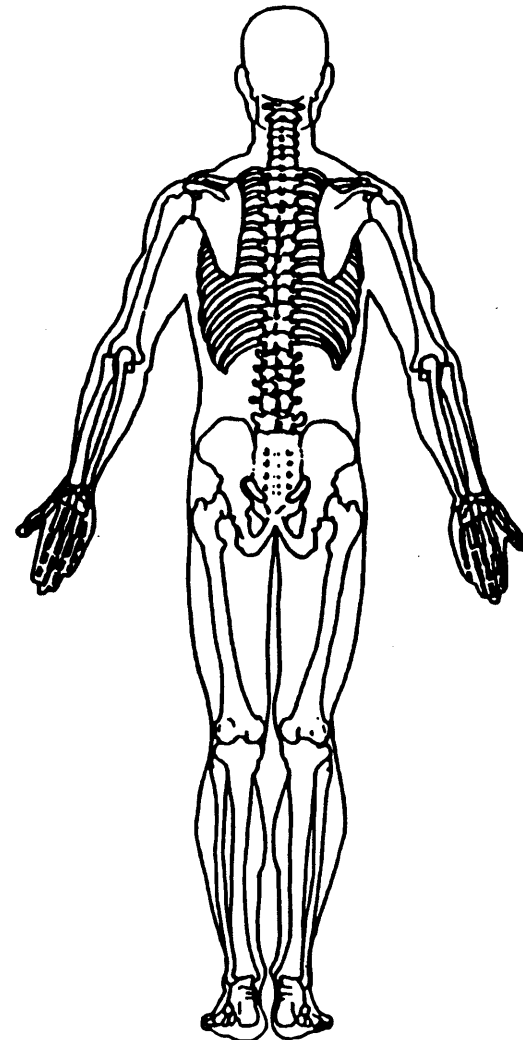
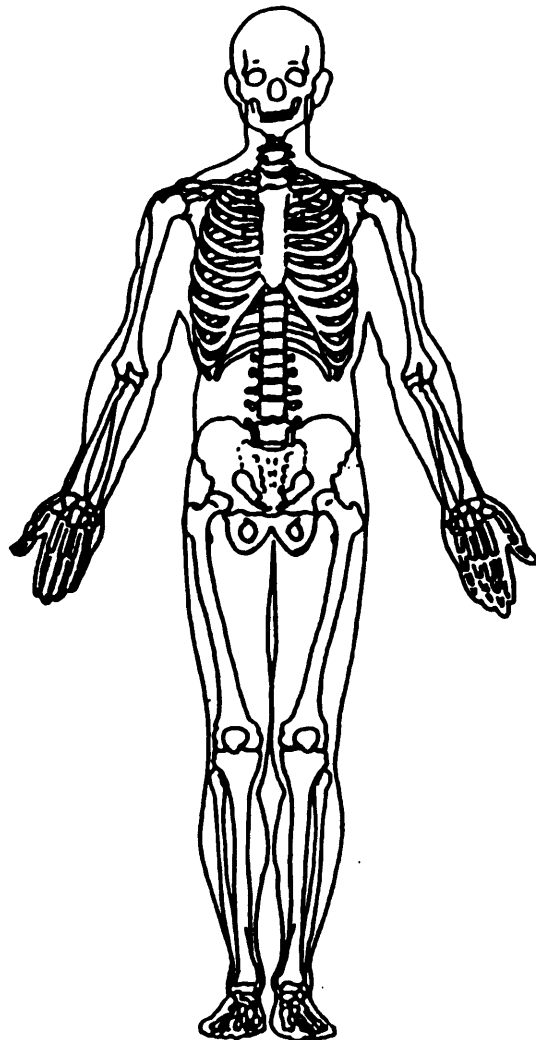
pH = ____

PO₂ = ____

PCO₂ = ____

HCO₃ = ____

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, ether attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____
- (019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____
- (195) Other air bag compartment cover (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): _____
- (409) Additional or relocated switches, (specify): _____
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

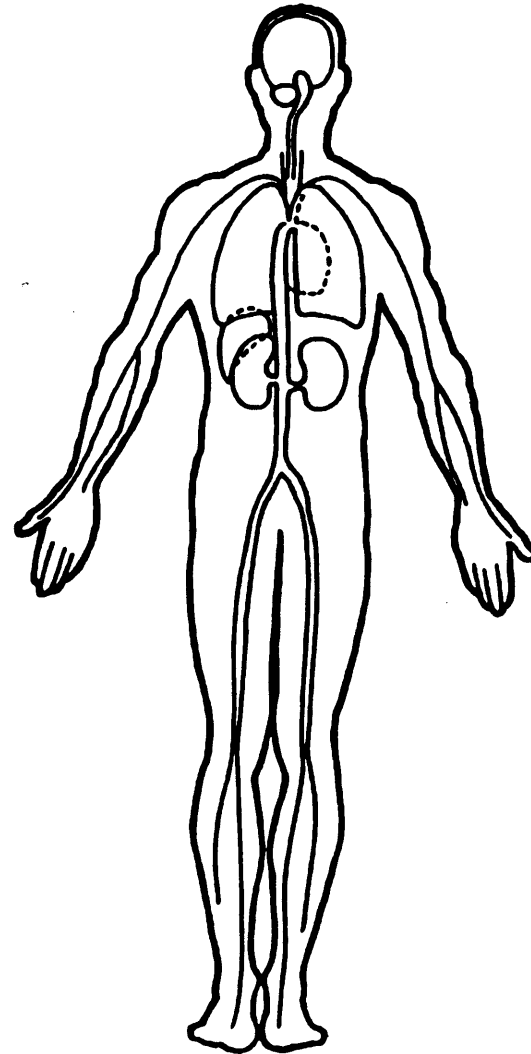
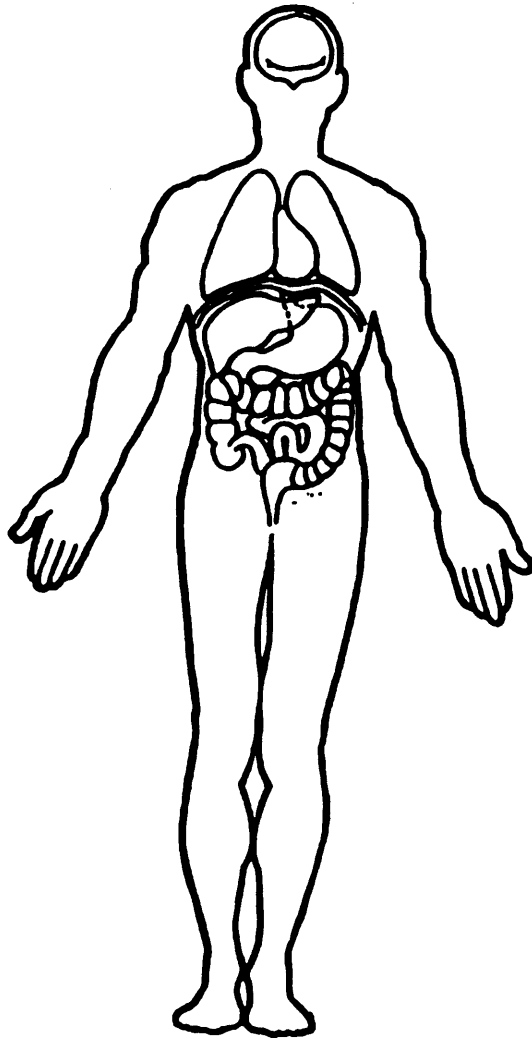
- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

OFFICIAL INJURY DATA –INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



CAUSE OF DEATH

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

Appendix J:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE RIGHT FRONT PASSENGER



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

3. Vehicle Number

01

4. Occupant Number

02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

09

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

1

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

140

Code actual height to the nearest
centimeter.

(999) Unknown

55 inches X 2.54 = 139.7 centimeters

8. Occupant's Weight

029

Code actual weight to the nearest
kilogram.

(999) Unknown

65 pounds X .4536 = 29.48 kilograms

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility 1

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 4

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes 1

During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 5

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [✓] Vehicle inspection
 [✓] Official injury data
 [] Driver/occupant interview
 [] Other (specify):

[] Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Air bag

Non-functional

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

(9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag 1

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): _____

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

(00) Not equipped/not available

____ Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact 1

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): _____

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of

Delta V For Air Bag

Deployment Impact

(_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(_996) Deployment, unknown longitudinal Delta V

(_997) Not deployed

(_998) Unknown if deployed

(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 01

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): _____

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued*

44. Source of Air Bag Damage 01
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 1
 (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

49. Head Restraint Type/Damage by Occupant at This Occupant Position 1
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) 02
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 5
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
Adjustable Seat Track
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 14

- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

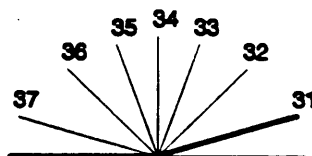
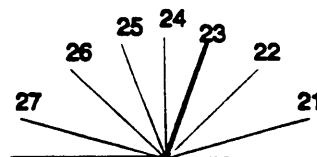
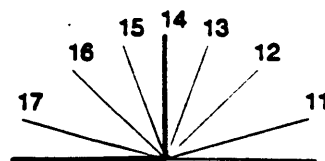
Slightly reclined prior to impact

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position

(99) Unknown

54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000
 (000) No child safety seat
 Applicable codes are found in your NASS CDS
 Data Collection, Coding and Editing
 (950) Built-in child safety seat
 (997) Other make/model (specify):

 (998) Unknown make/model
 (999) Unknown if child safety seat used

56. Type of Child Safety Seat 0
 (0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat - with shield
 (5) Booster seat - without shield
 (7) Other type child safety seat (specify):

 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00
 (00) No child safety seat

Designed for Rear Facing for This Age/Weight
 (01) Rear facing
 (02) Forward facing
 (08) Other orientation (specify):

 (09) Unknown orientation

Designed For Forward Facing for This Age/Weight
 (11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify):

 (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
 (21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify):

 (29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 00

59. Child Safety Seat Shield Usage 00

60. Child Safety Seat Tether Usage 00

Note: Options below applicable to
 Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether

(01) After market harness/shield/tether
 added, not used
 (02) After market harness/shield/tether used
 (03) Child safety seat used, but no after market
 harness/shield/tether added
 (09) Unknown if harness/shield/tether
 added or used

Designed With Harness/Shield/Tether

(11) Harness/shield/tether not used
 (12) Harness/shield/tether used
 (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used
 (22) Harness/shield/tether used
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES61. Injury Severity (Police Rating) 4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 01

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 62

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES**

66. Time to Death 20
 _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
 (00) Not fatal
 (96) Fatal - ruled disease
 (99) Unknown
67. 1st Medically Reported Cause of Death 06
68. 2nd Medically Reported Cause of Death 02
69. 3rd Medically Reported Cause of Death 04
 _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
 (00) Not fatal or no additional causes
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify): _____
 (97) Other result (includes fatal ruled disease) (specify): _____
 (99) Unknown
70. Number of Recorded Injuries for This Occupant 12
12 Code the actual number of injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

TRAUMA DATA

71. Glasgow Coma Scale (GCS) Score 02
 (at Medical Facility)
 (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured
72. Was the Occupant Given Blood? 9
 (1) No - blood not given
 (2) Yes - blood given
 (specify units): _____
 (9) Unknown if blood given
73. Arterial Blood Gases (ABG) - HCO₃ 01
 (00) Not injured
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination 2
 (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Vehicle inspection
 (2) Official injury data
 (3) Driver/occupant interview
 (8) Other (specify): _____
 (9) Unknown if belt used

Appendix K:

**NASS CDS OCCUPANT INJURY FORM:
CASE VEHICLE RIGHT FRONT PASSENGER**



U.S. Department of Transportation

National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9508

4. Occupant Number

02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	Body Region	A.I.S. - 90				Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number		
		Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity					Aspect	
Concussion, unresponsive 1st	52	6. <u>1</u>	7. <u>6</u>	8. <u>08</u>	9. <u>24</u>	10. <u>5</u>	11. <u>0</u>	12. <u>180</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
Subdural hemorrhage, bilateral 2nd	16. <u>1</u>	17. <u>1</u>	18. <u>4</u>	19. <u>06</u>	20. <u>54</u>	21. <u>5</u>	22. <u>3</u>	23. <u>180</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>
Cerebral edema, 3rd massive	27. <u>1</u>	28. <u>1</u>	29. <u>4</u>	30. <u>06</u>	31. <u>74</u>	32. <u>5</u>	33. <u>9</u>	34. <u>180</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>
⑧ 4th Subarachnoid hemorrhages	38. <u>1</u>	39. <u>1</u>	40. <u>4</u>	41. <u>06</u>	42. <u>84</u>	43. <u>3</u>	44. <u>1</u>	45. <u>180</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>
⑨ 5th	49. <u>1</u>	50. <u>1</u>	51. <u>4</u>	52. <u>06</u>	53. <u>84</u>	54. <u>3</u>	55. <u>2</u>	56. <u>180</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>
Atlanto-Occipital Dislocation, 6th	60. <u>2</u>	61. <u>6</u>	62. <u>5</u>	63. <u>02</u>	64. <u>08</u>	65. <u>2</u>	66. <u>6</u>	67. <u>180</u>	68. <u>1</u>	69. <u>2</u>	70. <u>00</u>
Contusion 8th	71. <u>1</u>	72. <u>2</u>	73. <u>9</u>	74. <u>74</u>	75. <u>02</u>	76. <u>1</u>	77. <u>1</u>	78. <u>180</u>	79. <u>1</u>	80. <u>1</u>	81. <u>00</u>
Abrasions Face, all aspects 8th	82. <u>1</u>	83. <u>2</u>	84. <u>9</u>	85. <u>02</u>	86. <u>02</u>	87. <u>1</u>	88. <u>0</u>	89. <u>180</u>	90. <u>1</u>	91. <u>1</u>	92. <u>00</u>
Contusion lips 9th	93. <u>1</u>	94. <u>2</u>	95. <u>9</u>	96. <u>04</u>	97. <u>02</u>	98. <u>1</u>	99. <u>8</u>	100. <u>180</u>	101. <u>1</u>	102. <u>1</u>	103. <u>00</u>
Laceration lip 10th	104. <u>1</u>	105. <u>2</u>	106. <u>9</u>	107. <u>06</u>	108. <u>02</u>	109. <u>1</u>	110. <u>8</u>	111. <u>180</u>	112. <u>1</u>	113. <u>1</u>	114. <u>00</u>

OCCUPANT INJURY DATA

	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th	<u>1</u>	<u>4</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>1</u>	<u>180</u>	<u>2</u>	<u>1</u>	<u>00</u>
tusions											
chest											
12th	<u>1</u>	<u>4</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>180</u>	<u>2</u>	<u>1</u>	<u>00</u>
13th	—	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—	—

Contusions
② + ③ chest

OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck			(3) Bilateral
(4) Thorax			(4) Central
(5) Abdomen			(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
	<u>Vessels, Nerves, Organs.</u>	To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	
	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		
	The exceptions to this rule apply to:		
Type of Anatomic Structure	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		
		Abbreviated Injury Scale	
		(1) Minor Injury	
		(2) Moderate Injury	
		(3) Serious Injury	
		(4) Severe Injury	
		(5) Critical Injury	
		(6) Maximum (untreatable)	
		(7) Injured, unknown severity	

SOURCE OF INJURY DATA

INJURY SOURCE

DIRECT/INDIRECT INJURY

CONFIDENCE LEVEL

OFFICIAL RECORDS

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

56 inches 62 pounds (A)

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

• Patient found with head flexed forward and to right side (ET)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

• Contusion (R) orbit (A)
• Abrasions (L + R) sides of face (A, ET)
• Contusion lips (A)
• Laceration of frenulum (A)
• Multiple lacerations on lips + face (CDS)

• R eye swelling (ET)
• Abrasion, brush-burn, diffuse on forehead extending to (L) + (R) orbits (A, ET)
• Abrasion, brush-burn, on nasal opening, and lips (A)
• Swelling + swelling nose + lips (ET)
• Contusions on (L) + (R) sides of chest (A)
• No other abrasions, contusions or deformities noted on body (ET)

• Diffuse subgaleal hemorrhage in frontal area extending to parietal area (A)
• Neck symmetric + unstable (A)
• No deformity or crepitus to C-spine noted (ET)

• No injuries to Extremities (ET)

Passenger front right (ET, ER)

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

___ No

☒ Yes

CMI, ET,
DS, ER, CN)

Blood Alcohol
Level (mg/dl)

BAL = 0
(A)

Glasgow Coma
Scale Score

GCSS = 3

(DS, ER, CN — later 4T)

Units of Blood
Given

Units =

Arterial Blood
Gases Assessed (ER)

pH =

PO₂ =

PCO₂ =

HCO₃ =

• Lap belt only (shoulder harness cut from behind patient)
(ET)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Air Bag Deployed
(ET, CN)

• No evidence of
intracerebral blood
flow — consistent with
clinical diagnosis
of brain death.
(PX)

Hemorrhage @ base of
tongue migrating
between C₁ and
foramen (A)

X-rays
chest — negative
(EX)

• No fractures of long
bones (A)

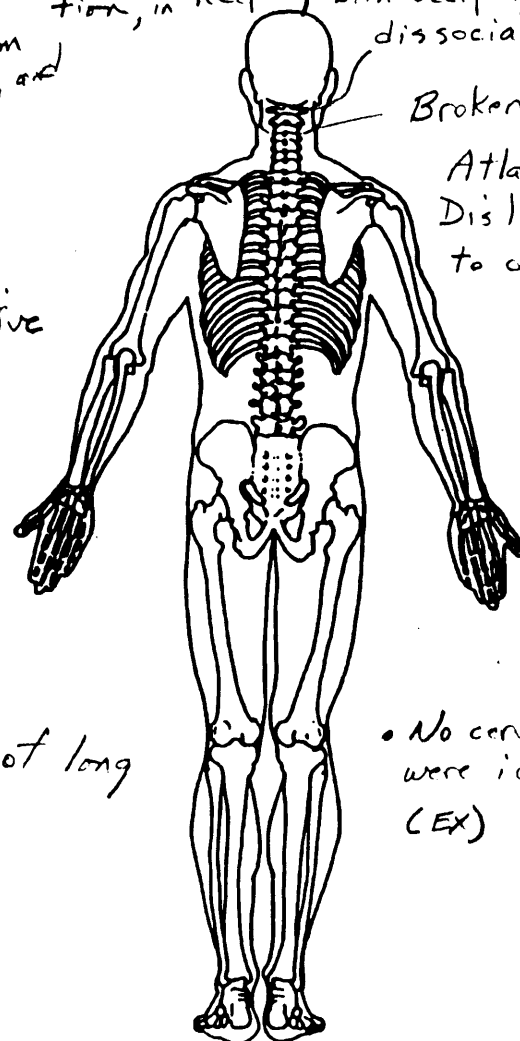
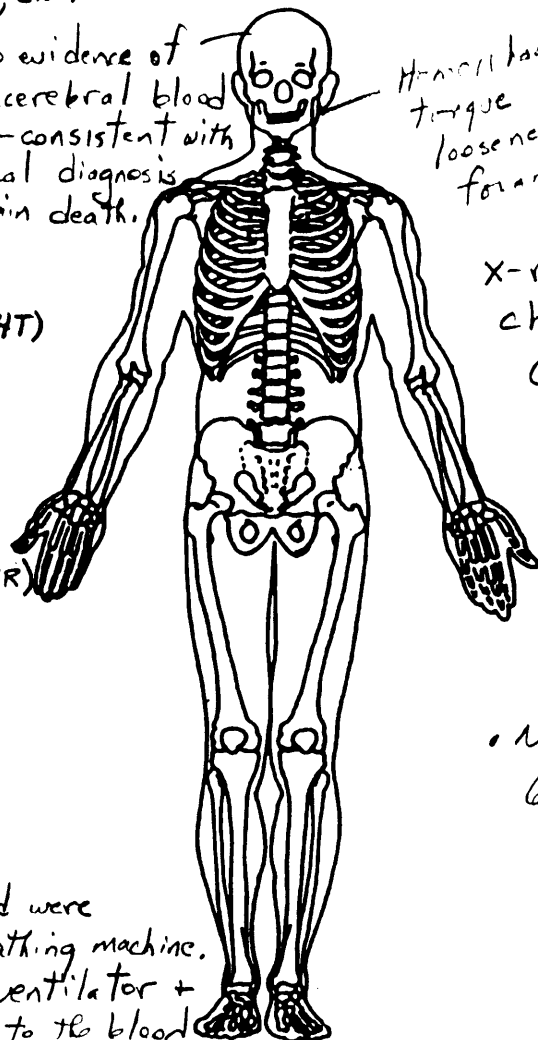
• Distraction between the occipital condyles
and C₁ without anterior or posterior subluxa-
tion, in keeping with occipital atlanto-
dissociation (EX)

Broken neck (A)

Atlanto-Occipital
Dislocation: basion
to dens 17 mm (CN)

• No cervical Fxs
were identified
(EX)

• Only breaths heard were
produced by breathing machine.
Pt. remained on ventilator +
adjustments due to the blood
gases were done to breathing machine (DS)



INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____
- (019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____
- (195) Other air bag compartment cover (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): _____
- (409) Additional or relocated switches, (specify): _____
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

- Pt found with a GCS=3 at the site of the accident (DS)

OFFICIAL INJURY DATA - INTERNAL INJURIES

• CT scan showed massive brain swelling & small subarachnoid bleeding; patient began posturing with some extremity movement (ET)
 Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Both pupils fixed & dilated, L-6mm, R-4mm (DS)
- Cerebral Edema (A, ET, ER)
- Pupils fixed & dilated, no movement or sensation evident when painfully stimulated (ET)
- Bilateral hemothorax* ~100 ml (A)
- Hemoperitoneum* ~250 ml (A)
- Diffuse edema effacement of cisterns & sulci, non visualization of 3rd & 4th ventricles (CW)
- Subdural hemorrhages (A, ER, CW) involving both sides of brain (ⓐ temporal-occipital & along anterior falx)
- Subarachnoid Hemorrhages (A) involving both sides of brain
- Ventricular system was blood tinged (A)
- Cerebellum & midbrain were grossly unremarkable except for being soft (A)
- Interval collapse of ⓐ upper lobe with mediastinal shift from ⓐ → ⓑ (PX)
- All extremities flaccid (ET)
- Pt remaining unresponsive without return of neuro function throughout transport (ET)
- At ER unconscious/unresponsive (ET)
- Unconscious, immediate (ET)
- Intubated, unresponsive in ER (DS, CW)
- On night of 9/5, Pt. was clinically brain dead. (DS)

* This blood could have resulted from organ donation - TRC/IU

CAUSE OF DEATH

... came to his death as a result of broken neck with subdural and subarachnoid hemorrhages (A)

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input checked="" type="checkbox"/> Unspecified	Negative	

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)



OFFICE OF THE MEDICAL EXAMINER OF [redacted]
[redacted] FORENSIC CENTER
[redacted] TEXAS [redacted]

AUTOPSY REPORT

Case [redacted]

[redacted], 1995

PATHOLOGICAL DIAGNOSES ON THE BODY
OF

[redacted], Texas

1. Broken neck.
2. Subdural and subarachnoid hemorrhages.
3. Cerebral edema.
4. Surgical absence of heart, lungs, spleen, left adrenal gland, both kidneys, pancreas, duodenum and prostate, postmortem.

OPINION

It is our opinion that the decedent, [redacted], came to his death as a result of broken neck with subdural and subarachnoid hemorrhage, motor vehicle accident, passenger.

[redacted], M.D., J.D.
Chief Medical Examiner

[redacted] 6/2/95
[redacted] M.D.
Assistant Medical Examiner

POSTMORTEM EXAMINATION ON THE BODY OF

, Texas

HISTORY: This 9 year old Caucasian male child was a passenger in a motor vehicle involved in an accident and was taken to [REDACTED] Hospital, [REDACTED] Texas, arriving at 7:45 p.m., on [REDACTED], 1995. He was pronounced dead at 2:40 p.m., on [REDACTED], 1995.

AUTOPSY: The autopsy was performed in the [REDACTED] Forensic Center of [REDACTED] by Assistant Medical Examiner [REDACTED] M.D., pursuant to Article 49.25, Texas Code of Criminal Procedure, beginning at [REDACTED], on [REDACTED] 1995.

EXTERNAL APPEARANCE: The body was that of a 9 year old Caucasian male child, who appeared the stated age. The body measured 56 inches in length and weighed 62 pounds. The body was well developed and fairly nourished in appearance. There was no body rigidity noted. There was no lividity appreciated. The head was normocephalic with a normal amount of blonde hair measuring 3 inches in length. The pupils were symmetrical in size and shape. The irides were gray. The corneae were shiny. The conjunctivae showed no petechiae. The sclerae were not icteric. The ears were unremarkable. The nose showed a brush burn abrasion on the nasal opening. The mouth showed natural teeth. There was a brush burn abrasion and contusion of the upper and lower lips, more marked on the upper side. There was a laceration of the frenulum. There was diffuse brush burn abrasion on the forehead extending to the left and right orbits. There were also abrasions on the left and right sides of the face. There was a purple contusion of the right orbit. The neck was symmetrical and unstable. The thorax was symmetrical in shape and contour. There was a vertical midline surgical incision extending to the abdomen closed with stitches measuring 17 inches in length. There was a recent needle puncture in the right infraclavicular area. There were focal areas of yellow-green contusion on the left and right sides of the chest. The abdomen was scaphoid in shape. The external genitalia were those of a normal circumcised male child with unremarkable testes in the scrotal sac. There was a recent needle puncture in the right inguinal area. The lower extremities showed no edema. The upper extremities showed recent needle punctures in the left and right cubital areas. There were no needle marks, no needle tracks or any deformity. The back was unremarkable. The cerebrospinal fluid could not be obtained.

INTERNAL EXAMINATION: Section: The body was opened through the usual Y-shaped thoracoabdominal incision. There was a normal amount of subcutaneous fat and muscle tissue encountered upon dissection that measured 1/2 inch at the level of the umbilicus. There was surgical splitting of the sternum at the midline. After removal of

the sternal plate, there were approximately 100 milliliters of bloody fluid in the left pleural cavity and the same amount and kind of fluid in the right. There were no adhesions observed. The pericardial sac was absent together with the heart. The abdominal cavity contained approximately 250 milliliters of bloody fluid. There were no adhesions observed. There was no organ displacement noted. The diaphragmatic domes were normally situated and the appendix was present in the right lower quadrant.

HEART: The heart was absent.

LUNGS: The lungs were absent.

LIVER: The liver weighed 800 grams. The capsule was smooth and glistening. On section, the parenchyma was orange-brown in appearance. The gallbladder was present but there was no bile recovered. There was a small segment of right adrenal gland noted on the inferior side of the right lobe.

Pancreas: The pancreas was absent.

Adrenals: A segment of right adrenal gland was present and on section was grossly unremarkable. The left adrenal gland was absent.

SPLEEN: The spleen was absent.

GENITOURINARY TRACT: The kidneys were absent. The urinary bladder and testes were present and were grossly unremarkable. The prostate was also absent.

GASTROINTESTINAL TRACT: The stomach was normal in shape and configuration. The serosal surfaces, muscularis layer and mucosa were grossly unremarkable. The lumen contained approximately 200 milliliters of dark green food particles. The duodenum was absent. A segment of small and large intestines including the appendix and esophagus were all grossly unremarkable.

BONES: There were no fractures of the long bones.

NECK: There was no injury to the soft tissues and muscles surrounding the neck. The thyroid gland, larynx, vocal cords, epiglottis, hyoid bone and tongue were grossly unremarkable. There was, however, hemorrhage at the base of the tongue. There was looseness between the first cervical vertebra and the foramen wherein the hemorrhage was originating.

HEAD: The scalp was incised and reflected. There was diffuse subgaleal hemorrhage in the frontal area extending to the parietal area. The calvarium was intact. There were subdural and subarachnoid hemorrhages involving both sides of the brain. The meninges were smooth and glistening. The gyri and sulci were

flattened. There were grooves of the unci and cerebellar tonsils. The cerebral hemispheres were symmetrical in shape and contour and the brain weighed 1650 grams. On section, the gray and white matter were well demarcated. The cerebral cortex was slightly soft in consistency. The ventricular system was blood tinged. The cerebellum and the midbrain were grossly unremarkable on section except for being soft in consistency.

., M.D., J.D.

FORENSIC PATHOLOGIST
ATTORNEY AT LAW
CHIEF MEDICAL EXAMINER



OFFICE OF THE MEDICAL EXAMINER OF [REDACTED]
[REDACTED] FORENSIC CENTER
[REDACTED], TEXAS [REDACTED]

TOXICOLOGY REPORT

MEDICAL LEGAL #:

DATE: [REDACTED]/95

NAME:

LABORATORY RESULTS

ALCOHOL: Blood = Negative

DRUG SCREEN: Stomach Content = Negative

HOSPITAL

NAME OF PATIENT:

UNIT #:

ROOM NUMBER:

DATE OF ADMISSION:

95

DATE OF DISCHARGE:

95

ATTENDING PHYSICIAN:

mo

ADMITTING DIAGNOSIS:

1. CLOSED HEAD INJURY

DISCHARGE DIAGNOSIS:

1. DECLARED DEAD ON -95 AT 15:25

HISTORY OF PRESENT ILLNESS: The patient was a nine year old white male who was involved in a motor vehicle accident on night of -95. The patient was the restrained passenger in the right front seat and the car was hit from the right front side, according to reports from the Emergency Room notes and the ER doctors. The patient was found with a Glasgow coma scale of 3 at the site of the accident. At that time, the patient was intubated and was brought by to Hospital Emergency Room. The patient was stabilized in the Emergency Room and transferred to the Pediatric Intensive Care Unit for further management.

PHYSICAL EXAMINATION:

GENERAL: The patient was intubated, unresponsive.

HEENT: Normocephalic with multiple lacerations on the lips, face, with a C-collar in place. Left pupil was fixed and dilated 6 cm. Right pupil was fixed and dilated 4 cm. Not responsive to light. No corneal reflex. Unable to fully evaluate the rest of this system due to the placement of the C-collar.

LUNGS: Clear to auscultation bilaterally. Equally ventilated bilaterally. Only breaths heard were produced by the breathing machine.

HEART: Regular rate and rhythm with no murmur.

ABDOMEN: Soft. No palpable masses. No lesions, no open wounds.

EXTREMITIES: The patient is paralyzed and sedated.

NEUROLOGICAL: Has a Glasgow coma scale of 3.

HOSPITAL COURSE: The patient was admitted to the Pediatric ICU intubated and was placed on conventional mechanical ventilation and was continued on I & B of 15 with a total volume of 500. PE and FIO2 of 40% with adequate blood gases during the rest of the night and the early morning. The patient remained on the ventilator and adjustments due to the blood gases were done to the breathing machine.

CARDIOVASCULAR: Cardiovascularly, initially the patient was stable, but early in the morning of -95, the patient developed some hypotension and several fluid boluses were given until the

DISCHARGE SUMMARY
(CONTINUED)

HOSPITAL

UNIT #:
PAGE 2

decision was made to start him on Dopamine and Dobutamine to have better perfusion to his organs. The patient remained on this until he was taken to the OR for organ donor procedures.

CENTRAL NERVOUS SYSTEM: On the night of [REDACTED] 95, the parents were informed by Dr. [REDACTED] at the bedside that the patient was clinically brain dead and since he was on disseminating intravascular coagulopathy, was not able to have bulb to monitor his intracranial pressure and that all further measures were hopeless to save his brain. On the morning of [REDACTED] 95, Dr. [REDACTED] spoke with the parents and explained to them why clinically the patient was brain dead. The patient did not have any cold caloric reflex, no gag reflex, no corneal reflex or no reflexes at all. Brain flow study was done to confirm any blood flow to the brain and this negative. At that time, the patient was pronounced brain dead and the parents were asked about organ donation, which they agreed to do. On [REDACTED] 95, the patient was taken to the OR by the organ donor team and had a bilateral resection of his kidneys for organ transplantation.
DICTATED BY: REVIEWED BY:

MD
RESIDENT

MD
ATTENDING PHYSICIAN

D: [REDACTED] 95

T: [REDACTED] 95

MD.
by record only.
Dr. [REDACTED] was co-attending & was attending in ICU the night patient was there

DISCHARGE SUMMARY

HOSPITAL
EMERGENCY CENTER RECORD

PAGE 1

PRESS HARD YOU ARE MAKING 4 COPIES

MR. DATE TIME NURSE
MR. DATE TIME NURSE

PATIENT'S HOME PHONE: WORK PHONE:

URGENCY CODE ☐ I ☐ II ☐ III

TIME TEMP PULSE RESP BP

IN ROOM	TETANUS	LMP	WT	POLICE NOTIFIED	PREVIOUS EC VISIT	NO SERVICE
TIME	PHYSICIAN / PREFERRED CODE		TIME(S) NOTIFIED	TIME(S) RESPONDED / ARRIVED	COMMENTS	
PRE-ARRIVAL INFORMATION			CURRENT MEDICATIONS		ALLERGIES	

CC

HP: S/P MVC, pt. front passenger - SB, hit from R side
Pt. intubated at the scene, mannitol given en route.

PMHx:

PTX:

SOC Hx:

RQS:

T.

P.

R.

BP

GENERAL APPEARANCE:

PE

Arrival GCS = 3
pupils fixed + dilated
facial instability
Chest - clear eg BS
Abd - soft - mass
GU - nl or no blood @ meatus.
Ext - no CCE

2

HOSPITAL

EMERGENCY CENTER RECORD

PAGE 2

PRESS HARD YOU ARE MAKING 4 COPIES

DATE

TIME	DIAGNOSTIC INTERVENTIONS	RESULTS/INTERPRETATIONS
	CBC	CT head + abd
	Chem 20	C/S → A/D dislocation
	D/C screen	CXR
	ABG	Pelvic
TREATMENT INTERVENTIONS		
Mannitol 25gm		
hyperventilation via assisted ventilation.		
OBSERVATIONS/CLINICAL COURSE SUMMARY		
Pt. intubated in CT by Dr. [REDACTED] c		
5.5 cuffed ETT		
ATTENDING PHYSICIAN'S COMMENTS		
Pt. examined. S/P MVA in front passenger seat c 8B on, hit @ front as turning.		
CLINICAL IMPRESSIONS		
1. S/P MVC	2. C/H I	3. Cerebral edema
DISCHARGE INSTRUCTIONS		DISCHARGE MED. DOSE/SIG/QT

SOCIAL WORKER NOTIFIED		DISPOSITION OF PATIENT			
<input type="checkbox"/> HOME		<input checked="" type="checkbox"/> INPATIENT	<input type="checkbox"/> OBSERVATION	<input type="checkbox"/> PATIENT TRANSFERRED	<input type="checkbox"/> DECEASED
FOLLOW UP DATE & TIME	BED CONTROL NOTIFIED	REASON FOR TRANSFER		NEXT OF KIN NOTIFIED	
FOLLOW UP SITE	BED ASSIGNED	ACCEPTING FACILITY		PASTORAL CARE NOTIFIED	
INSTRUCTION SHEET COMPLETED & UNDERSTOOD <input type="checkbox"/> YES <input type="checkbox"/> NO	REPORT GIVEN TO	ACCEPTING PHYSICIAN		MEDICAL EXAMINER NOTIFIED	
PATIENT CLASSIFICATION (CIRCLE ONE) 1 2 3 4 5 6	ADMIT ATTENDING M.D.	MODE OF TRANSFER		BODY RELEASED TO	
CONDITION OF DISCHARGE	ADMIT SERVICE	COPY OF CHART, X-RAYS & RESULTS:		FAMILY PHYSICIAN NOTIFIED	
PATIENT'S SIGNATURE	DISCHARGE OF VALUABLES	DISPOSITION OF VALUABLES		DISPOSITION OF VALUABLES	
DISCHARGE NURSE SIGNATURE & ID #	PAGE 1 2 SIGNATURE & ID	PD 3-4-5 SIGNATURE & ID		AT 6-7-8 SIGNATURE & ID	

MEDICAL RECORDS

BR 9

INPATIENT ADMIT [REDACTED] 1995

SERVICE:

Neurosurgery - [REDACTED]

DATE/TIME

E.C. CONSULTATION / CONTINUATION

9:40 3/P MVA reportedly sustained 2 deployment of air bag
inhabited & given medical attention on field GCS E 5 Apr 57
BP 100's Taken by group of [REDACTED]

PT: Man young w/ emergency intubated C-collar neck brace
VS. RR 20 bpm HR 42 RR on vent.

neuro - pupils 4mm @ fixed @ corneal @ @ corneal @
@ gag
deconstruct posture @ to [REDACTED] & [REDACTED] [REDACTED]

PT 17.5

PT 85.8

PT 62

PT @

E, YOT M2 N = GCS 5T.
CT - Diffuse edema, effacement of cisterns & sulci
non-visualization of 3rd & 4th ventricles
subdural hematoma @ temporal-occipital &
along ant. table

C-spine - Atlanto-occipital lesion to dens 17mm
non-visualization of occipital condyle.

Imp. 940 w/ 8/p MVA severe CHI & downward central
herniation small @ Temporal-occipital SDH
Atlanto-occipital Dislocation

Plan: Maximally Tx for ↑ IOP correct coagul. will
place T-CP (minic) when corrected
HOB elevated 30° C-COLLAR to remain ON ALL TIMES
completion completion of plain films T & L spine

EACH NOTE SHOULD INCLUDE: MONTH,
DAY, YEAR & TIME, SIGNATURE

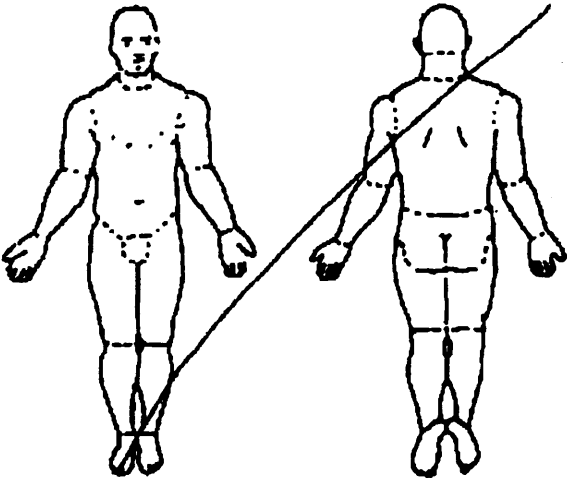
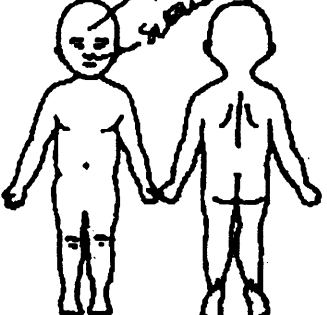
ATTACH THIS TO CORRESPONDING SHEETS OF E.C. FORM
CHART

TEST	DATE	TIME	COMMENTS
<input checked="" type="checkbox"/> Defective prep for lab	6/24/77	7:15 AM	OK
Trismus I			
Trismus II			
DIC			
T & Cross #			
C-Spine	✓		
CXR	✓		
Palms	✓		
EKG			
Cysto/RUG			
IVP			
Extremity: R / L			
_____ OR O L			
_____ OR O L			
_____ OR O L			
_____ OR O L			
T-Spine			
L-Spine			
Glauk FACIAL	✓	7:00	
TEST	ORDER TIME	TO	ACCOMPANIED BY
CT DIC-Spine	198/6	7:15	
Angio			

2000

MEDICATION / DOSE	ROUTE	SITE	TIME / BY	COMMENTS	
DT 0.5cc	IM			Lot #	Expiry: <input type="checkbox"/> No Adverse Reaction
ALBUTEROL	IN		10:00		<input type="checkbox"/> No Adverse Reaction
NSAID S, IN			20:00		<input type="checkbox"/> No Adverse Reaction
					<input type="checkbox"/> No Adverse Reaction
					<input type="checkbox"/> No Adverse Reaction
					<input type="checkbox"/> No Adverse Reaction

TIME	BP	P	R	T	CO2/ATM	PULSE	ECG	TIME	FLWSHEET / NURSES' NOTES
1445	120/80	92	10		111	100		1445	WASHED VET GLOVES
1448	120/80	92	10		111	100		1448	WASHED GLOVES, CHANGED GLOVES
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	<p>1. ABRASION 8. DEFORMITY 15. STAB WOUND/IMPALEMENT</p> <p>2. AMPUTATION 9. OPEN FRACTURE 16. SWELLING</p> <p>3. AVULSION 10. GSW 17. WOUND UNKNOWN ETIOLOGY</p> <p>4. BITE 11. HEMATOMA</p> <p>5. BURN 12. LACERATION</p> <p>6. CONTUSION 13. NO SENSATION</p> <p>7. CRUSH 14. PUNCTURE</p> <p style="text-align: center;">UNABLE</p>																																																																																									
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PATIENT INFORMATION DATE: <u>4/5</u> TIME: <u>1415</u> DOB: <u>9</u> AGE: <u>9</u> <u>M</u> <u>F</u> PATIENT NAME: <u> </u> ID #: <u> </u> CODE: <u>I</u> <u>II</u> <u>III</u> VIA: <input type="checkbox"/> LIFE FLIGHT <input type="checkbox"/> H.F.D. (# <u> </u>) <input checked="" type="checkbox"/> AMBULANCE (# <u> </u>) <input type="checkbox"/> AUTOMOBILE <input type="checkbox"/> OTHER <u> </u> MODE: <input checked="" type="checkbox"/> STRETCHER <input type="checkbox"/> CARRY <input type="checkbox"/> WHEELCHAIR <input type="checkbox"/> WALK																									
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Appendix L:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE LEFT SECOND-SEATED PASSENGER



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

3. Vehicle Number

01

4. Occupant Number

03

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

12

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

155

Code actual height to the nearest
centimeter.

(999) Unknown

61 inches X 2.54 = 154.9 centimeters

8. Occupant's Weight

039

Code actual weight to the nearest
kilogram.

(999) Unknown

85 pounds X .4536 = 38.55 kilograms

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

21

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility 4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 9

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):
 (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 0

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [X] Vehicle inspection
 [] Official injury data
 [] Driver/occupant interview
 [] Other (specify):
 [] Unknown if belt used

30. Frontal Air Bag System 0

Availability/Function (This Occupant Position)

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 0

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag 0

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 0

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): _____

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 00

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact 0

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): _____

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of +Delta V For Air Bag - 0 0 0

Deployment Impact

(_ 000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(_ 996) Deployment, unknown longitudinal Delta V

(_ 997) Not deployed

(_ 998) Unknown if deployed

(_ 999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 0

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 0

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 00

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): _____

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**44. Source of Air Bag Damage 00

- (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

- (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):

- (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown

45. Was The Air Bag Tethered? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):

- (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

46. Did The Air Bag Have Vent Ports? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):

- (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

48. Was This Occupant Wearing Eye-wear? 0

- (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 1

- (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):

(9) Unknown

50. Seat Type (this Occupant Position) 02

- (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):

(9) Unknown

52. Seat Track Adjusted Position Prior To Impact 1

- (0) Occupant not seated or no seat
 (1) Non-adjustable seat track

Adjustable Seat Track

- (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 14

- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

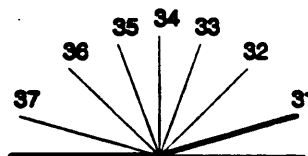
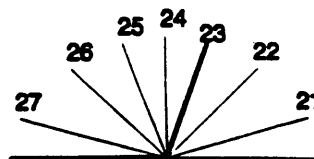
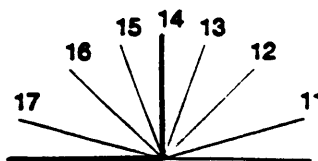
Slightly reclined prior to impact

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position

- (99) Unknown

54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0059. Child Safety Seat Shield Usage 0060. Child Safety Seat Tether Usage 00Note: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)** 0

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 00

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****TRAUMA DATA****66. Time to Death** 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death 00**68. 2nd Medically Reported Cause of Death** 00**69. 3rd Medically Reported Cause of Death** 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 01

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 01
(at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

- (1) No - blood not given
(2) Yes - blood given
(specify units):
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 01

- (00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO₃
(96) ABGs reported, HCO₃ unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION**74. Primary Source of Belt Use Determination** 1

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify):
(9) Unknown if belt used

Appendix M:

NASS CDS OCCUPANT INJURY FORM:

CASE VEHICLE LEFT SECOND-SEATED PASSENGER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>9508</u>	4. Occupant Number	<u>03</u>

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90					Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number		
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
Contusion ① shoulder	5. <u>7</u>	6. <u>7</u>	7. <u>9</u>	8. <u>04</u>	9. <u>02</u>	10. <u>1</u>	11. <u>2</u>	12. <u>152</u>	13. <u>2</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. <u> </u>	17. <u> </u>	18. <u> </u>	19. <u> </u>	20. <u> </u>	21. <u> </u>	22. <u> </u>	23. <u> </u>	24. <u> </u>	25. <u> </u>	26. <u> </u>
3rd	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>	33. <u> </u>	34. <u> </u>	35. <u> </u>	36. <u> </u>	37. <u> </u>
4th	38. <u> </u>	39. <u> </u>	40. <u> </u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>	47. <u> </u>	48. <u> </u>
5th	49. <u> </u>	50. <u> </u>	51. <u> </u>	52. <u> </u>	53. <u> </u>	54. <u> </u>	55. <u> </u>	56. <u> </u>	57. <u> </u>	58. <u> </u>	59. <u> </u>
6th	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>
7th	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>
8th	82. <u> </u>	83. <u> </u>	84. <u> </u>	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>
9th	93. <u> </u>	94. <u> </u>	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>
10th	104. <u> </u>	105. <u> </u>	106. <u> </u>	107. <u> </u>	108. <u> </u>	109. <u> </u>	110. <u> </u>	111. <u> </u>	112. <u> </u>	113. <u> </u>	114. <u> </u>

OCCUPANT INJURY DATA

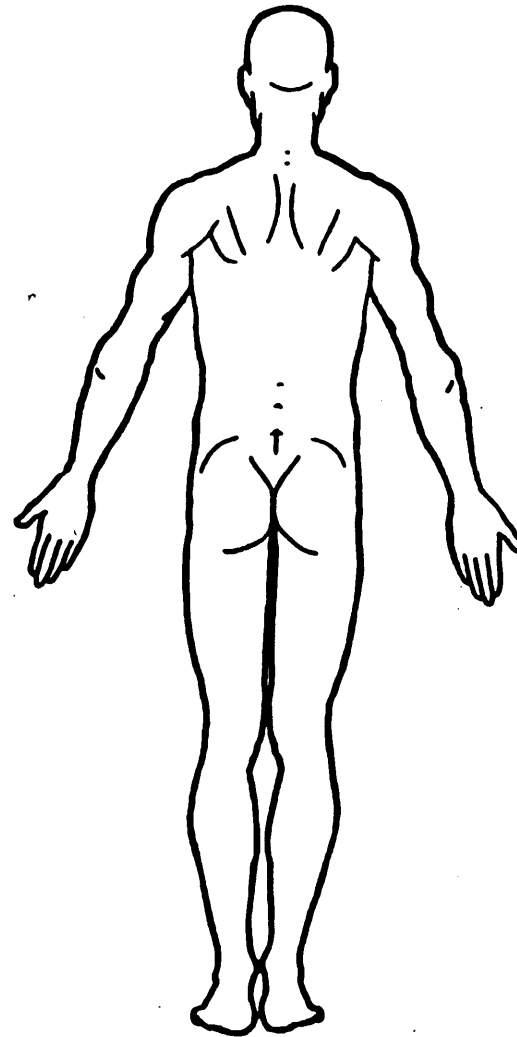
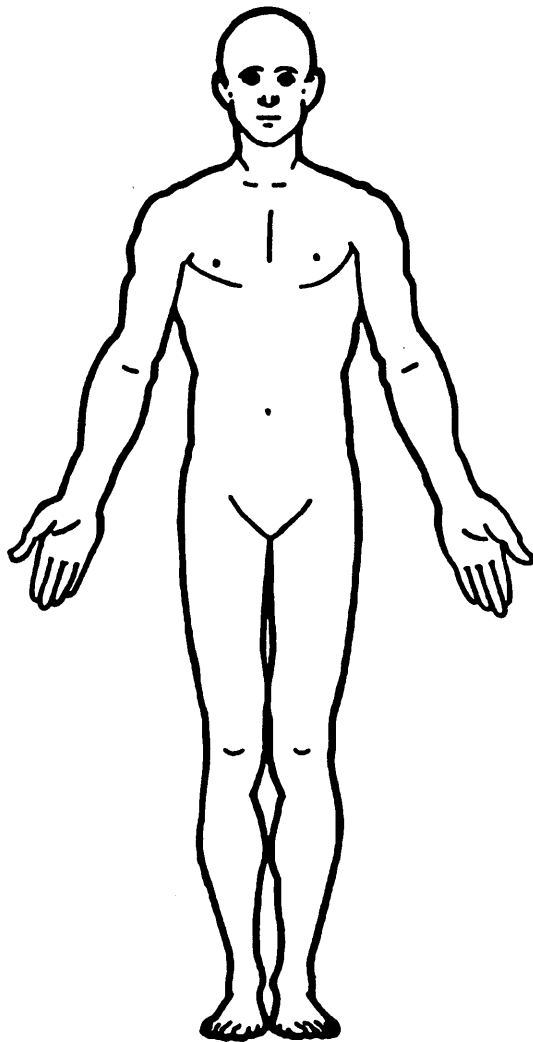
A.I.S. - 90										
Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th	—	—	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY
<u>OFFICIAL RECORDS</u> (1) Autopsy records with or without hospital/medical records (2) Hospital/medical records other than emergency room (e.g., discharge summary) (3) Emergency room records only (including associated X-rays or other lab reports) (4) Private physician, walk-in or emergency clinic <u>UNOFFICIAL RECORDS</u> (5) Lay coroner report (6) E.M.S. personnel (7) Interviewee (8) Other source (specify): _____ (9) Police	(1) Certain (2) Probable (3) Possible (9) Unknown	(1) Direct contact injury (2) Indirect contact injury (3) Noncontact injury (7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

___ No

___ Yes

Blood Alcohol
Level (mg/dl)

BAL = ___

Glasgow Coma
Scale Score

GCSS = ___

Units of Blood
Given

Units = ___

Arterial Blood
Gases

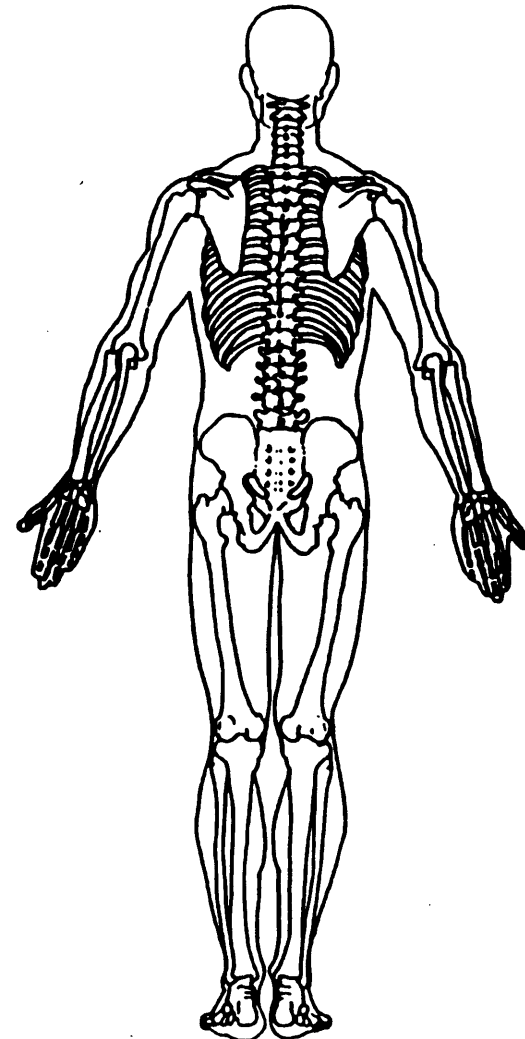
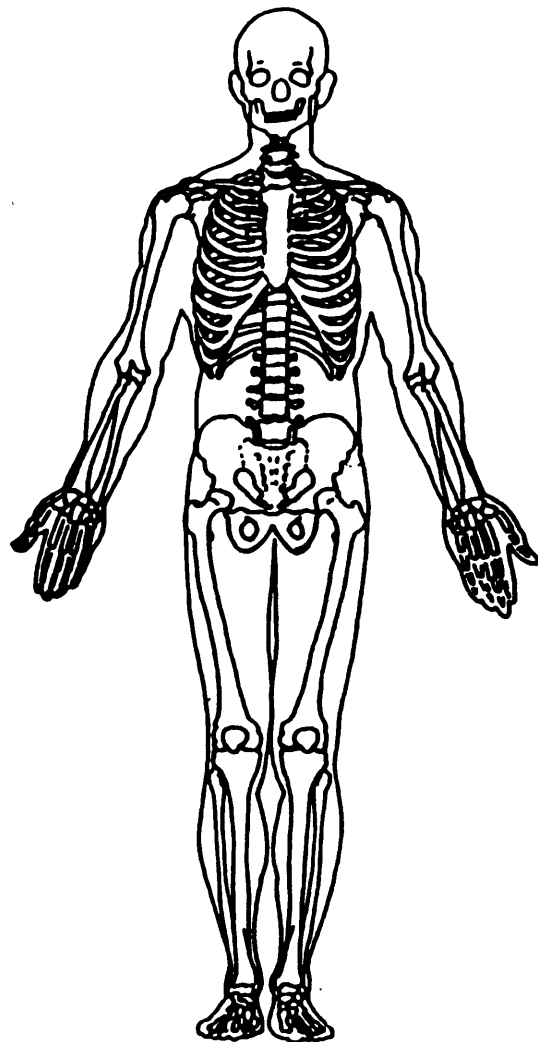
pH = ___

PO₂ = ___

PCO₂ = ___

HCO₃ = ___

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____
- (019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____
- (195) Other air bag compartment cover (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top
- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

FLOOR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): _____
- (409) Additional or relocated switches, (specify): _____
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR OF OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

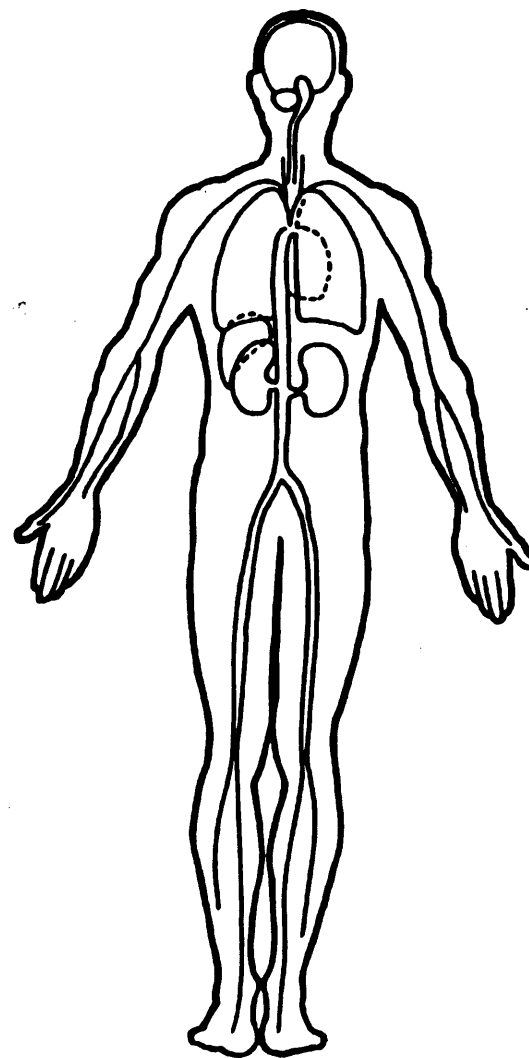
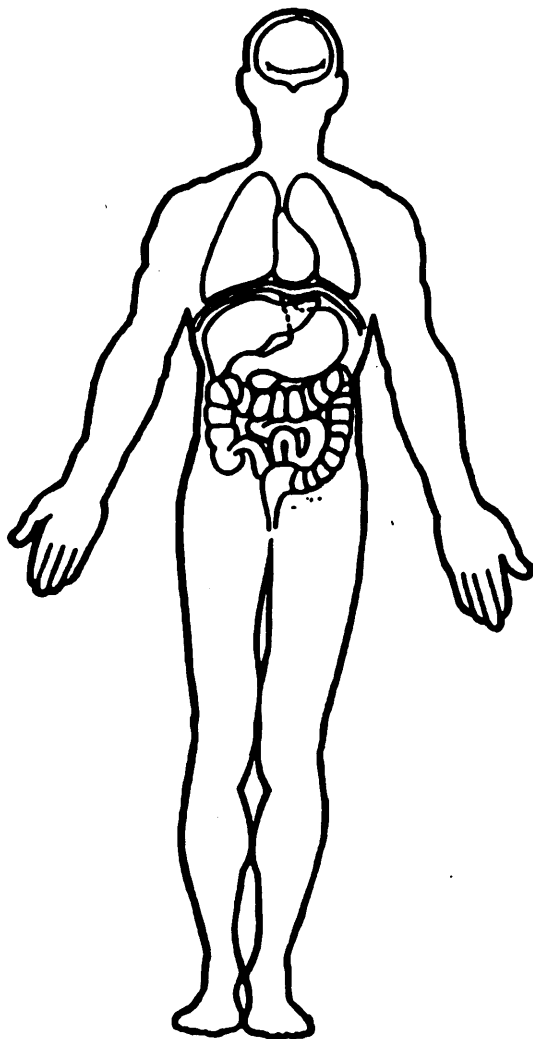
- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



CAUSE OF DEATH

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

Appendix N:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE RIGHT SECOND-SEATED PASSENGER



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9508

3. Vehicle Number

01

4. Occupant Number

04

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

04

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

109

Code actual height to the nearest centimeter.

(999) Unknown

43 inches X 2.54 = 109 centimeters

8. Occupant's Weight

018

Code actual weight to the nearest kilogram.

(999) Unknown

40 pounds X .4536 = 18 kilograms

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

23

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT**12. Ejection**

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0**13. Ejection Area**

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

0**14. Ejection Medium**

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

0**15. Medium Status (Immediately Prior To Impact)**

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0**16. Entrapment**

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

0**17. Occupant Mobility**

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

4

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 4

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes 1

During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 9

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 3

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):
 (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 0

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [] Vehicle inspection
 [] Official injury data
☒ Driver/occupant interview
 [] Other (specify):
 [] Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

- (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 0

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 0

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 0

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify):

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 00

- (00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 0

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify):

(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 000

- (_000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_996) Deployment, unknown longitudinal Delta V
(_997) Not deployed
(_998) Unknown if deployed
(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 0

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 0

- (0) Not equipped/not available
(1) No
(2) Yes (specify):
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 00

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify):

- (95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION *continued*

44. Source of Air Bag Damage 00
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? 0
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 0
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 0
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 0
 (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

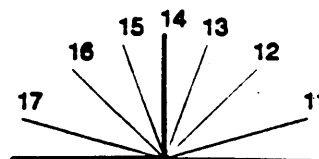
49. Head Restraint Type/Damage by Occupant at This Occupant Position 1
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) 02
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 1
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
- Adjustable Seat Track*
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued***53. Seat Back Incline Prior and Post Impact** 14

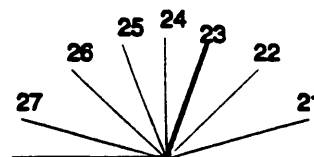
- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

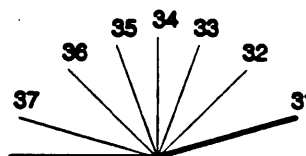
- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

*Slightly reclined prior to impact*

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

*Completely reclined prior to impact*

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed
 (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment
 intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0059. Child Safety Seat Shield Usage 0060. Child Safety Seat Tether Usage 00Note: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)** 0

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 00

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****TRAUMA DATA****66. Time to Death** 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death 00**68. 2nd Medically Reported Cause of Death** 00**69. 3rd Medically Reported Cause of Death** 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 00

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 00
(at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

- (1) No - blood not given
(2) Yes - blood given
(specify units):
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 00

- (00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO₃
(96) ABGs reported, HCO₃ unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION**74. Primary Source of Belt Use Determination** 3

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify):
(9) Unknown if belt used

Appendix O:

NASS CDS OCCUPANT ASSESSMENT FORM:

VEHICLE #2 DRIVER



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

70 inches X 2.54 = 177⁸ centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

155 pounds X .4536 = 070³ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility 4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 00

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 1

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use 4

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):
 (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 0

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
☒ Vehicle inspection
 [] Official injury data
 [] Driver/occupant interview
 [] Other (specify):
 [] Unknown if belt used

AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):
 (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

- (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 0

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 0

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 0

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify):

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 00

- (00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 0

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify):

(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 000

- (_000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_996) Deployment, unknown longitudinal Delta V
(_997) Not deployed
(_998) Unknown if deployed
(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 0

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 0

- (0) Not equipped/not available
(1) No
(2) Yes (specify):
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 00

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify):

- (95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION *continued*

HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage 00

- (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

- (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (08) Other damage source (specify):

- (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown

45. Was The Air Bag Tethered? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):

- (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

46. Did The Air Bag Have Vent Ports? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):

- (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 0

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

- (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

48. Was This Occupant Wearing Eye-wear? —

- (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 1

- (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):

(9) Unknown

50. Seat Type (this Occupant Position) 02

- (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):

(9) Unknown

52. Seat Track Adjusted Position Prior To Impact 5

- (0) Occupant not seated or no seat
 (1) Non-adjustable seat track

Adjustable Seat Track

- (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

PER
Interviewee

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 2 3

(00) Occupant not seated or no seat

(01) Not adjustable

Upright prior to impact

(11) Moved to completely rearward position

(12) Moved to rearward midrange position

(13) Moved to slightly rearward position

(14) Retained pre-impact position

(15) Moved to slightly forward position

(16) Moved to forward midrange position

(17) Moved to completely forward position

Slightly reclined prior to impact

(21) Moved to completely rearward position

(22) Moved to rearward midrange position

(23) Retained pre-impact position

(24) Moved to upright position

(25) Moved to slightly forward position

(26) Moved to forward midrange position

(27) Moved to completely forward position

Completely reclined prior to impact

(31) Retained pre-impact position

(32) Moved to rearward midrange position

(33) Moved to slightly rearward position

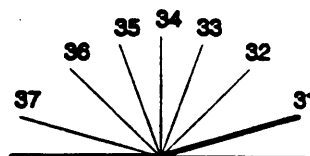
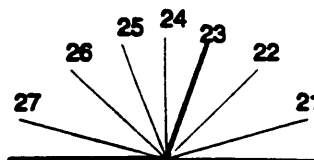
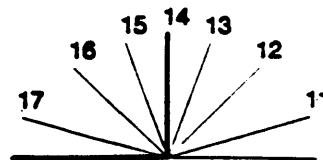
(34) Moved to upright position

(35) Moved to slightly forward position

(36) Moved to forward midrange position

(37) Moved to completely forward position

(99) Unknown

54. Seat Performance (this Occupant Position) 1

(0) Occupant not seated or no seat

(1) No seat performance failure(s)

(2) Seat adjusters failed

(3) Seat back folding locks or "seat back" failed
(specify): _____

(4) Seat track/anchors failed

(5) Deformed by impact of occupant

(6) Deformed by passenger compartment
intrusion, (specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000
(000) No child safety seat
Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):

(998) Unknown make/model
(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat - with shield
(5) Booster seat - without shield
(7) Other type child safety seat (specify):

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 00

59. Child Safety Seat Shield Usage 00

60. Child Safety Seat Tether Usage 00

Note: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether

- (01) After market harness/shield/tether
added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market
harness/shield/tether added
(09) Unknown if harness/shield/tether
added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)**0

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment)0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay00

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost97

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

H.S.
Student

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****66. Time to Death** 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death 00**68. 2nd Medically Reported Cause of Death** 00**69. 3rd Medically Reported Cause of Death** 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 01

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

TRAUMA DATA**71. Glasgow Coma Scale (GCS) Score** 01

(at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

- (1) No - blood not given
(2) Yes - blood given

(specify units):

- (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 01

- (00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO₃
(96) ABGs reported, HCO₃ unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION**74. Primary Source of Belt Use Determination** 1

(0) Not equipped/not available/destroyed or rendered inoperative

- (1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify):
(9) Unknown if belt used

Appendix P:

NASS CDS OCCUPANT INJURY FORM:

VEHICLE #2 DRIVER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10
9508

3. Vehicle Number

02

2. Case Number - Stratum

4. Occupant Number

01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	Body Region	A.I.S. - 90				Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number		
		Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
Contusion ① Knee 1st	5. <u>7</u>	6. <u>8</u>	7. <u>9</u>	8. <u>04</u>	9. <u>02</u>	10. <u>1</u>	11. <u>2</u>	12. <u>010</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. <u> </u>	17. <u> </u>	18. <u> </u>	19. <u> </u>	20. <u> </u>	21. <u> </u>	22. <u> </u>	23. <u> </u>	24. <u> </u>	25. <u> </u>	26. <u> </u>
3rd	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>	33. <u> </u>	34. <u> </u>	35. <u> </u>	36. <u> </u>	37. <u> </u>
4th	38. <u> </u>	39. <u> </u>	40. <u> </u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>	47. <u> </u>	48. <u> </u>
5th	49. <u> </u>	50. <u> </u>	51. <u> </u>	52. <u> </u>	53. <u> </u>	54. <u> </u>	55. <u> </u>	56. <u> </u>	57. <u> </u>	58. <u> </u>	59. <u> </u>
6th	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>
7th	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>
8th	82. <u> </u>	83. <u> </u>	84. <u> </u>	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>
9th	93. <u> </u>	94. <u> </u>	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>
10th	104. <u> </u>	105. <u> </u>	106. <u> </u>	107. <u> </u>	108. <u> </u>	109. <u> </u>	110. <u> </u>	111. <u> </u>	112. <u> </u>	113. <u> </u>	114. <u> </u>

OCCUPANT INJURY DATA											
Source of Injury Data	A.I.S. - 90						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect					
11th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
12th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
13th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
14th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
15th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
16th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
17th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
18th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
19th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
20th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
21st	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
22nd	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
23rd	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
24th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
25th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —

A.I.S. - 90											
Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severrty	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
11th	—	—	—	---	---	---	-----	---	---	---	
12th	—	—	—	---	---	---	-----	---	---	---	
13th	—	—	—	---	---	---	-----	---	---	---	
14th	—	—	—	---	---	---	-----	---	---	---	
15th	—	—	—	---	---	---	-----	---	---	---	
16th	—	—	—	---	---	---	-----	---	---	---	
17th	—	—	—	---	---	---	-----	---	---	---	
18th	—	—	—	---	---	---	-----	---	---	---	
19th	—	—	—	---	---	---	-----	---	---	---	
20th	—	—	—	---	---	---	-----	---	---	---	
21st	—	—	—	---	---	---	-----	---	---	---	
22nd	—	—	—	---	---	---	-----	---	---	---	
23rd	—	—	—	---	---	---	-----	---	---	---	
24th	—	—	—	---	---	---	-----	---	---	---	
25th	—	—	—	---	---	---	-----	---	---	---	

Body Region

Level of Injury

Aspect

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Vessels, Nerves, Organs.
Bones, Joints are assigned
consecutive two digit
numbers beginning with
02.

The exceptions to this rule apply to:

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

Type of Anatomic Structure

Whole Area

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes Muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

- (02) Skin - Abrasion**
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
(04) Level
(06) of
(08) Consciousness
(10) Concussion

Spine

- (02) Cervical
(04) Thoracic
(06) Lumbar

Abbreviated Injury Scale

- (1) Minor Injury
- (2) Moderate Injury
- (3) Serious Injury
- (4) Severe Injury
- (5) Critical Injury
- (6) Maximum
(untreatable)
- (7) Injured, unknown
severity

SOURCE OF INJURY DATA

INJURY SOURCE

DIRECT/INDIRECT INJURY

CONFIDENCE LEVEL

OFFICIAL RECORDS

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

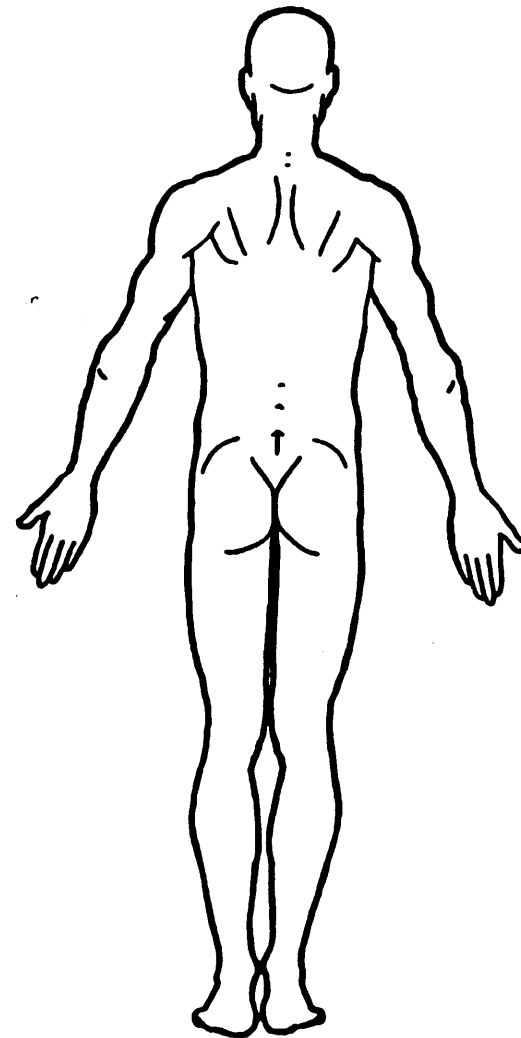
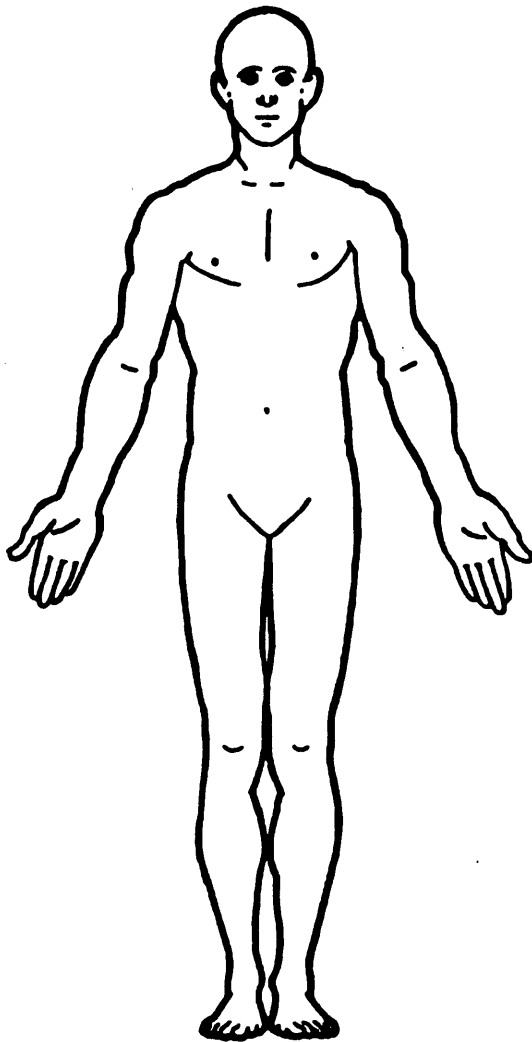
- (5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):
(9) Police

- (1) Certain
(2) Probable
(3) Possible
(9) Unknown

- (1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

___ No

___ Yes

Blood Alcohol
Level (mg/dl)

BAL = ___

Glasgow Coma
Scale Score

GCSS = ___

Units of Blood
Given

Units = ___

Arterial Blood
Gases

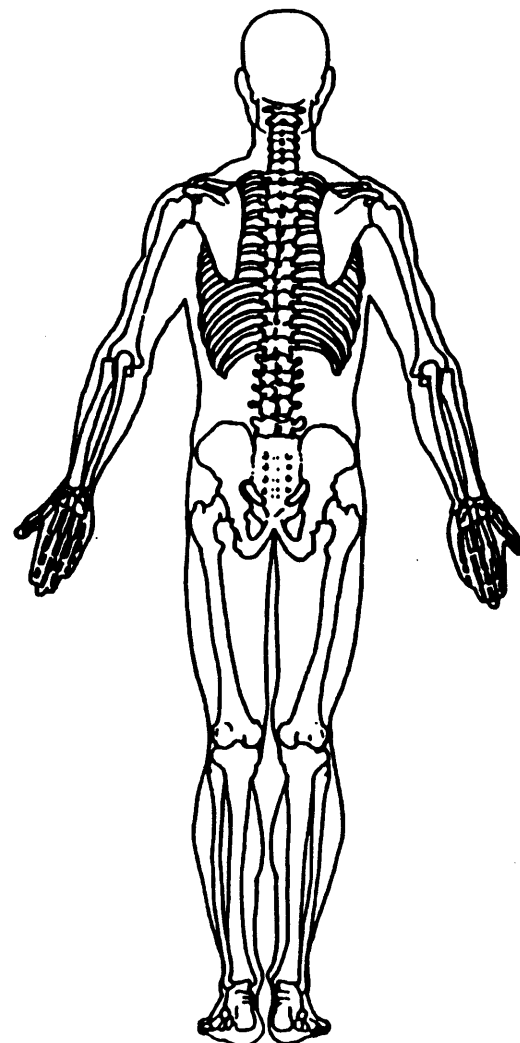
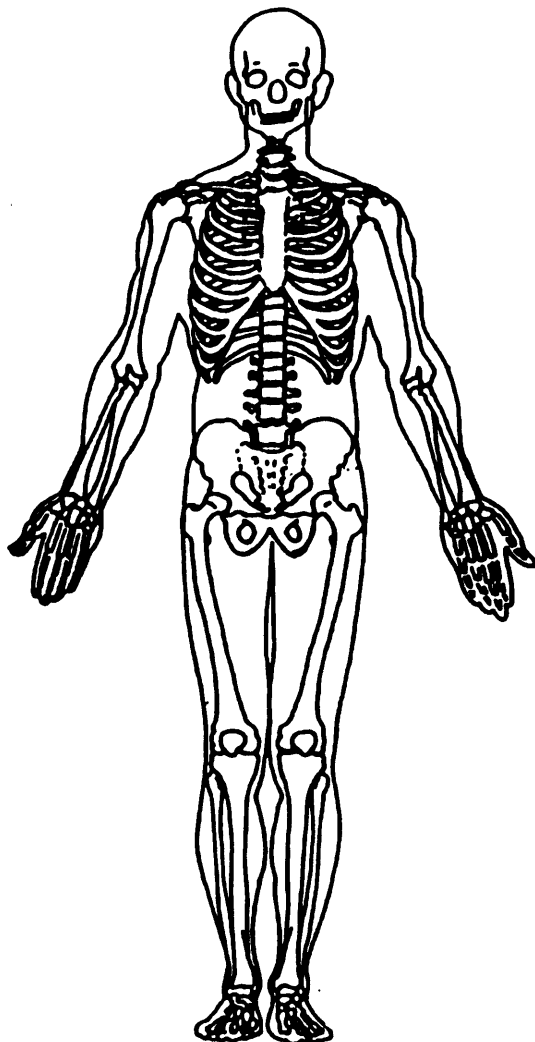
pH = ___

PO₂ = ___

PCO₂ = ___

HCO₃ = ___

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____
- (019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____
- (195) Other air bag compartment cover (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): _____
- (409) Additional or relocated switches, (specify): _____
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

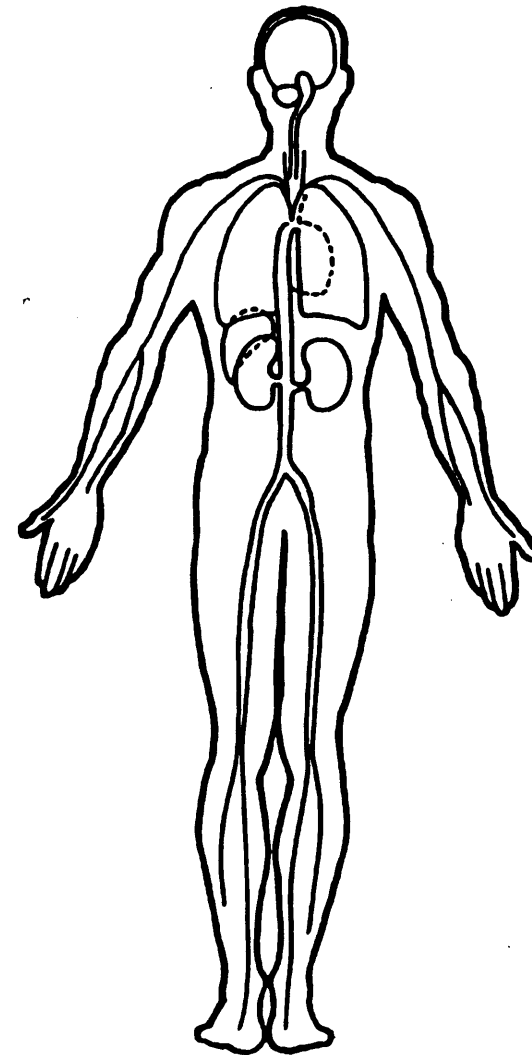
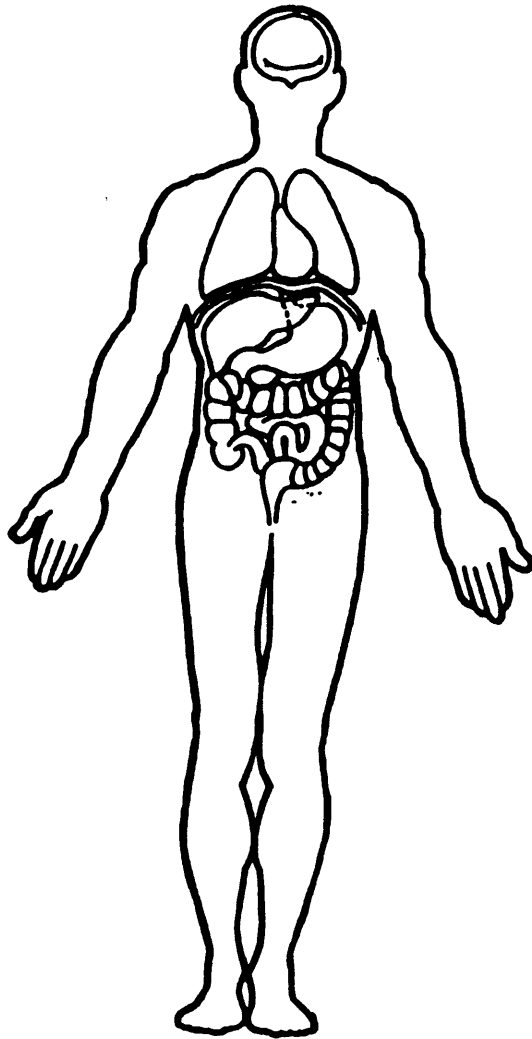
- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



CAUSE OF DEATH

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

Appendix Q:

OPINION OF MEDICAL CONSULTANTS

Task 0028:

EMERGENCY ROOM PHYSICIAN

Pages 156, 156R, and 157

FORENSIC PATHOLOGIST

Page 157R

and

Task 0058:

FORENSIC PATHOLOGIST

Page 158

[REDACTED] S
[REDACTED] Center
[REDACTED]
[REDACTED] Street
[REDACTED] Indiana [REDACTED]

Dear Mr. [REDACTED]

SCHOOL OF MEDICINE

In my opinion the shoulder harness of the three point restraint was not in use at the time of the accident. I base this opinion upon evidence of that in the emergency medical record and the absence of any evidence of superficial injury from this restraint.

1. The superficial injuries of the face are sliding abrasions which are described by the prosector as brush abrasions. This kind of injury is most consistent with having been produce by the material of the airbag.

3. There are no fractures of the face or skull indicating that the forces were well distributed throughout the head and the weakest point away from the direct application of force was the junction of the head and neck. This is where the atlanto-occipital dislocation or dissociation occurred.

It is also my opinion that but for the airbag the child would be alive.

Sincerely,

MD

██████████ Professor of Pathology and Laboratory Medicine
██████████ Forensic Pathology

Indiana

10

[REDACTED], M.D.
[REDACTED]
[REDACTED] In. [REDACTED]
[REDACTED] 1995

Mr. [REDACTED]
[REDACTED] Research Center
[REDACTED]
[REDACTED] In [REDACTED]

Dear Mr. [REDACTED]:

I am an Emergency Physician, having practiced in the [REDACTED] area for the past fifteen years. I received my M.D. from the [REDACTED] in 1972. I then did my post doctoral specialty training in [REDACTED] University from 1972-74, and did my final year of residency training at [REDACTED] Hospital. I engaged in the private practice of Pediatrics at [REDACTED] from 1975-80 and was certified by the American Board of Pediatrics on [REDACTED] 1978. I then made a career change and shifted to Emergency Medicine and have been affiliated with the group now known as [REDACTED] since 1980. I have been certified by the American Board of Emergency Medicine from [REDACTED] 1986 to the present. I have had an ongoing interest in pediatric trauma, but this is the first time I have been asked to review an accident by your center.

At your request I have reviewed the materials you have sent me in regards to Task [REDACTED], and I have formulated some opinions to answer the questions you have directed me to address.

To preface my answers, I would like to present some pertinent facts about the anatomy and physiology regarding this unfortunate youngster's mechanism of death. I feel that the most likely direct cause of his demise was a condition known as atlanto-occipital dislocation, which is, in effect, the dislodging of the head from on top of the bones of the neck. This, no doubt, interrupted his ability to maintain stability in control of his heart rate, respirations, and blood pressure. He also sustained subdural and subarachnoid hemorrhages, which means that he had bleeding within the vault of his skull which encloses the brain; this also contributed to his demise and to his loss of consciousness after the accident.

Children are much more susceptible to atlanto-occipital dislocation because their heads are much larger and heavier proportionately to their body than are adults. As a result any sudden forward or backward momentum will result in much greater instability at the upper cervical (neck) vertebrae than we would see in a similar accident situation in an adult. This is borne out in cervical spine injury statistics in

which children are shown to have a far greater proportion of high cervical lesions than are adults.

I have reviewed the materials which you have forwarded to me in this case, and have come to two conclusions with regard to the questions you have asked me to address. I feel reasonably certain that the occupant's medical records indicate that he was not using the torso portion of his lap and shoulder belt and I do feel that the vehicle's right front passenger air bag caused the patient's head and neck injuries. Furthermore I feel that these two facts were both pivotally interrelated in the severity of the injuries he sustained.

To address the seat belt injury issue first let me point out that the on-the-scene medic's report states that the patient was found at the scene of the accident to be unconscious and unresponsive and wearing "lap belt only (shoulder harness cut from behind pt)". This would not be uncommon to see the shoulder restraint displaced in this manner, for children of this age often find the shoulder harness to be unsettling as it often will cross the body in the area of the face or neck and be uncomfortable for them. This problem has been somewhat solved by the addition of a shoulder harness tether, but I am not sure whether there is a such a tether on this minivan's torso restraint.

Also one may infer from the distribution of the wounds on the boy's face that he wasn't wearing the torso restraint. The postmortem exam demonstrated a "brush burn abrasion on the nasal opening", a "brush burn abrasion and contusion of the upper and lower lips, more marked on the upper side", a "laceration to the frenulum", and "diffuse brush burn abrasion of the forehead extending to the right and left orbits". I would believe that these lesions would be most easily explained by a direct blow to the face as the face was directed in an upward direction. Most likely, this would have been the case had the boy not have been wearing a shoulder restraint but had been wearing a seat belt. In this perspective should the driver have suddenly applied a braking action to the vehicle, the lad's upper torso would have been directed in a forward direction with a reflexive extension of the neck with the face directed in an upward direction.

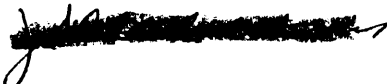

This also is most consistent with the nature of the cause of the death, i.e., with the head in such a position it would be in a direct line with the force vector of the explosion of the right front passenger air bag, particularly as it was situated in this vehicle, being launched from a position atop the dashboard with the momentum directed directly toward the youngster's face. I feel that if the air bag had been directed from a position we have come to associate with the glove box (in the front of the dashboard), the impact of the blow would have been directed to the child's anterior chest wall and only secondarily to his face, and thus might not have resulted in the devastating head and neck injuries.

One may also (although not so certainly) infer from the relatively mild exterior damage and essentially no damage done to the vehicle that the lad would have sustained very little injury had he not come in contact with the air bag . This, however is more speculative as I have seen fatalities associated with very little vehicular damage, although usually not while the patient has been wearing adequate lap and shoulder restraints. In any event I feel that this youngster's fatal head and neck injuries were directly caused by the air bag although he may not have sustained these injuries had his torso been restrained from the forward movement resulting in the upward displacement of his head when it was contacted by the air bag.

I would recommend further research in the area of the child's unique anatomical size and physiology as it pertains to air bags. I feel that it would be prudent to outfit all shoulder harnesses with the tether option, not only for the comfort of the passenger, but to ensure his safety as he will be more likely to wear it if it fits comfortably.

Should you have any questions regarding my analysis of this incident please feel free to contact me. Thank you for the opportunity of serving in this capacity.

Sincerely yours.
































 M.D.

5. SUPPLEMENTARY INCIDENT REPORT

OF

9 yr Male - MUX - Lap Belt only - Front @ impact - Air Bag deployed - Immediate \rightarrow Sustained unconscious - MSS arrived and pt was breathing 16/min Initial O₂ via Mask \rightarrow Extricate/Immobilize - ET 30 and uncuffed - Secured/Confirmed by Auscultation - IV L.R. TKP - All prior to my arrival [redacted] originally called but aborted due to weather so transported to [redacted] mother on board. I found pt ET \rightarrow Hyperventilated - on KED/Tort - Unconscious/unresponsive - pulse 50 B/P 120/90 - Only visible injury is abrasions to (1) face/forehead - (2) eye swollen - swelling/bleeding nose/mouth - pupils fixed/dilated - No Tracheal midline - chest wall stable \rightarrow abdominal soft/non distended - pelvic stable - NO extremity movement Cont'd O₂ \rightarrow Hyperventilation 24/min - 2nd IV - 150cc Moxitrol 20% IV infusion - SpO₂ remained 98-100% - Small Cauda retracted multiple times - B/P \rightarrow 120/90 \rightarrow 120/p \rightarrow 110/p \rightarrow 100/p and pulse 45-75 % occasional complete heart block - pt had No spontaneous respirations after ET my arrival - pupils remained fixed/dilated and no extremity movement during transport At ER unconscious/unresponsive - p50 B/P 100/p - pupils fixed/dilated ~~ET~~ Confirmed via X-ray - Trauma team advised CT scan showed massive brain swelling & small subarachnoid bleeding - pt began posturing % some extremity movement

20:37

TIME	GCS	PUPIL	RESP RATE	BREATH SOUNDS	BLOOD PRESSURE	PULSE	RHYTHM	THERAPY/MEDICATIONS/ADVANCED PROCEDURES	# OF ATTEMPTS	APS
:				L R						
:				L R						
:				L R				JVD = jugular vein distention		
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						
:				L R						

ATTENDANT

HEAD	① Pt found with head flexed forward and to rt side, manual c-spine alignment performed and maintained throughout extrication and packaging of pt - respiratory status improved O ₂ admin HF by mask; no deformities or crepitus noted to
NECK	
CHEST	
ABDOMEN	
PELVIS	
BACK	
EXTREMITIES	
SKIN COLOR	clinical spine noted; no fluid from ears; rt eye swelling; pupils fixed and dilated; facial abrasions, bleeding and swelling - nose and lips;

no JVD or tracheal deviation noted, no other abrasions, contusions or deformities noted on body; lungs clear bilaterally, no paradoxical movement thorax; abd soft without distention; pelvis stable; no injuries to extremities; no movement or sensation evident when painfully stimulated; all extremities flaccid, circulation present all extremities. Mother on scene advised pt was unresponsive immediately following impact. Mother also advised pt had no signif med Hx.

② Pt's cervical spine maintained and collar applied - pt rapidly extricated to long board and KED - pt secured in KED, head secured with foam rolls and tape - pt moved to unit; (Monitor applied immediately following extrication) pt ventilated with 100% O₂ - Et 5.0 inserted with placement confirmed by auscultation - tube secured (no cuff on tube) pt hyperventilated. Continued throughout - (V NACLS lab ② antecub TKO 184 angio - 2nd line ^(* bloody aspirate set) lab 164 angio ② antecub - with blood drawn prior to infusion both lines TKO - (Isoserial advised through second line 150cc ~~sterile~~ infusion pt remaining unresponsive without return of neuro function throughout transport. Vital signs and lung sounds reassessed repeatedly during transport and upon return to ED staff - SpO₂ remaining at 100%.

CONDITION ON ARRIVAL AT ER

Pupils remaining fixed and dilated.

RELEASE OF LIABILITY
REFUSAL OF EMERGENCY MEDICAL ASSISTANCE OR AMBULANCE TRANSPORT

I _____ fully understand my medical

The possibility of medical complications _____ and said patient attests he/she understands what he/she is accepting of evaluation/treatment or transport to a hospital. _____ said patient has refused to sign the Release of Liability form.

EMRP
T200

INVESTIGATOR'S REPORT

(x)AUTOPSY
()VIEW
()INQUEST ONLY

Investigator: [REDACTED]

Case No. [REDACTED]

Decedent: [REDACTED] Race: W Sex: M Age: 9 D.O.B.: [REDACTED]

Home Address: [REDACTED] Texas Telephone: [REDACTED]

Date of Death: [REDACTED] 1995 Time: 2:40 p.m. Found: [REDACTED]

Place of Death: [REDACTED] Hospital, [REDACTED] Texas (ICU) City(x)/County()/Pct()
Telephone: [REDACTED]

Zip Code: [REDACTED]

M.E. Notified: [REDACTED] Date: [REDACTED] 95 Time: 2:55 p.m.

Place of Inquest: Via telephone. Date: [REDACTED] 95

Informant: Dr. [REDACTED] Time: 2:55 p.m.

Next of Kin: [REDACTED] father Address: same

Next of Kin Notified by: Present at the hospital. Date: [REDACTED] Time: [REDACTED]
Telephone: [REDACTED]

Personal Physician: Chart [REDACTED] Address: [REDACTED] Telephone: [REDACTED]

How Identification was Made: Viewed at the hospital by his father.

Location, Position, and Surroundings of Body: Supine in the Intensive Care Unit, bed [REDACTED]

Clothing: There was no clothing.

Information: According to Dr. [REDACTED], the decedent arrived via [REDACTED] EMS at 7:45 p.m., on [REDACTED], 1995, from [REDACTED] with an admitting diagnosis of head trauma. He was pronounced dead at 2:40 p.m., on [REDACTED], 1995, by Dr. [REDACTED]. According to Deputy [REDACTED], this accident occurred at [REDACTED] Drive and [REDACTED] Precinct [REDACTED] at 6:30 p.m., on [REDACTED], 1995 and witnessed by [REDACTED]. The decedent was a passenger in a 1995 Voyager Mint Van, Texas registration [REDACTED] driven by the decedent's mother, [REDACTED] going west on [REDACTED] turning left onto [REDACTED], when they were struck by a 1985 Chevrolet Suburban, Texas registration [REDACTED] driven by [REDACTED] who past the stop sign. Charges were pending on the driver of the Chevrolet Suburban, who had his seat belt on. The decedent and his mother had their seat belts on.

Dr. [REDACTED] Deputy Chief Medical Examiner, released the body for harvesting of organs and the body to be brought to the [REDACTED] Forensic Center for autopsy. (Photos were taken at [REDACTED] Hospital by [REDACTED] Investigator for the Medical Examiner's Office.)

M.E. Photos: (x)Yes ()No Police Agency: [REDACTED] Case No.: [REDACTED]
Property: There was no property.

Funeral Home Transporting Decedent: [REDACTED] Texas (x)Requested

Funeral Home Receiving Decedent: [REDACTED], [REDACTED] Texas ()Dispatched

EMERGENCY MEDICAL SERVICES														
DATE <u>9-5</u>		MEDIC # _____		VEHICLE # _____		PATIENT <u>1</u> OF <u>1</u>								
INCIDENT # _____		INCIDENT LOCATION _____												
DISPATCHED AS. <u>MVA</u>	DISPATCHED <u>1834</u>	ENROUTE <u>1835</u>	ARRIVED SCENE <u>1840</u>	DEPARTED SCENE <u>1856</u>	ARRIVED DEST. <u>1930</u>	RETURNED TO SVC <u>2001</u>								
PATIENT'S NAME _____					PAST MEDICAL HISTORY: <u>None</u>									
DOB _____ AGE <u>9</u> SEX <u>F</u> SS# _____														
ADDRESS _____														
CITY _____ STATE <u>TX</u> ZIP _____					ALLERGIES: <u>None</u>									
APARTMENT# _____ PHONE _____					CURRENT MEDICATIONS: <u>None</u>									
RESPONSIBLE PARTY _____					PATIENT RELEASED TO _____ ER _____									
RELATION TO PATIENT <u>MOTHER</u>					PRIVATE AMBULANCE _____									
ADDRESS _____					POLICE _____ LIFE FLIGHT _____ OTHER _____									
CITY _____ STATE _____ ZIP _____														
INITIAL ASSESSMENT: <u>HEAD - C-SPINE</u>					PATIENT LOCATION _____ ON VEHICLE									
<u>(N) INJURY - UNCONSCIOUS, UNRESPONDING</u> <u>flaccid extremities, shallow respirations</u>					VEHICLE DAMAGE <u>MOD</u> SEAT BELT <u>(YES) NO UNKNOWN</u>									
<u>(A) passenger front (R) - lap belt</u> <u>only shoulder harness cut from behind pt</u>					WINDSHIELD DAMAGE _____ HELMET <u>(YES) NO UNKNOWN</u>									
					B VEHICLE ROLLOVER <u>No</u> AIR BAG <u>(YES) NO UNKNOWN</u>									
					IMPACT OBJECT <u>SUB.</u> CHILD RESTRAINT <u>(YES) NO UNKNOWN</u>									
PRESENTING PROBLEMS					TREATMENT GIVEN									
1) ABDOMINAL PAIN 2) ALLERGIC REACTION 3) ANIMAL ATTACKS 4) ASSAULT 5) BACK PAIN (____) 6) BREATHING PROBLEMS 7) BURNS 8) CARDIAC / RESPIRATORY ARREST 9) CHEST PAIN 10) CHOKING 11) CONVULSIONS/SEIZURES 12) DIABETIC PROBLEMS 13) DROWNING (NEAR) 14) ELECTROCUTION 15) EYE PROBLEMS 16) FALL 17) HAZ/MAT (INHALATIONS)					18) HEADACHE 19) HEART PROBLEMS 20) HEAT / COLD EXPOSURES 21) HEMORRHAGE/LACERATIONS/ABRASIONS 22) INDUSTRIAL/MACHINERY ACCIDENTS 23) OVERDOSES/POISONINGS/INGESTIONS 24) PREGNANCY/CHILDBIRTH/MISCARRIAGE 25) PSYCHIATRIC/EMOTIONAL PROBLEMS 26) SICK CALL 27) STAB/CUTTING/GUNSHOT WOUND 28) STROKE (CVA) 29) TRAFFIC ACCIDENT (INJURIES) 30) TRAUMATIC INJURIES 31) UNCONSCIOUS/Fainting/SYNCOPE 32) UNKNOWN PROBLEM (MAN DOWN) 33) EMERGENCY TRANSFER 34) AUTOMATIC MEDICAL ALARM					BLS (A) AIRWAY MANAGEMENT (A) ASSISTED BREATHING 3) BANDAGING/SPLINTING/TRACTION 4) BLEEDING CONTROLLED 5) BURN MANAGEMENT 6) CHILDBIRTH TIME _____ 7) CPR INITIATION TIME _____ 8) EMOTIONAL ASSISTANCE (A) IMMOBILIZATION NECK/SPINE (A) OXYGEN ADMINISTRATION (A) PHYSICAL EXAM / VITAL SIGNS (A) SUCTION 13) THUMPER 14) OTHER _____				
					ALS (A) BLOOD DRAWN 2) CENTRAL LINE 3) CHEST DECOMPRESSION 4) DEFIBRILLATOR (A) EKG MONITORING 6) EGTA/EOA INSERTION 7) EXTERNAL JUGULAR CANNULATION 8) GLUCOMETER 9) INTRACOSCEOUS INFUSION (A) INTRAVENOUS INFUSION (A) INTUBATION ORAL / NASAL 12) MAST (A) MEDICATIONS ADMINISTRATION 14) NASOGASTRIC INSERTION/LAVAGE 15) NEBULIZATION 16) NITROUS OXIDE ADMINISTRATION 17) NONINVASIVE, EXTERNAL PACING (A) PULSE OXIMETER 19) OTHER _____									
TIMES	RESPIRATORY RATE	PULSE	BLOOD PRESSURE	REATH (SOUNDS)	RHYTHM	BLS/ALS SKILLS PERFORMED			# OF ATTEMPTS	APS				
18:35	18	NO	120/90	Clear	reg	PE & C-spine manual EKG								
18:45			120/90	L R		SPO ₂ RA = 96% O ₂ MASK 15L/min								
:			120/p	L R		RAPID EXTRICATION TO LONG BEARD								
:			110/p	L R										
19:14			100/p	L R										
✓ 18:40 18:45				L R		ET S.O lung sounds confirmed								
18:47 18:47				L R		IV NaCl 18g (A) ANTICUB								
18:48	ASSTED	54	120/90	L R		EKG showing Bradycardia								
18:49			120/p	L R		IV NaCl 16g angio (R) antecub								
:				L R		Blood Drawn 12LEKG								
19:14		56	100/p	L R		Manual stress infusion								
:				L R		150ml.								
19:25	✓	54	100/p	L R										
:				L R										
:				L R										
PATIENT CONDITION ON SCENE <u>3</u>						1 - NON-EMERGENCY								
PATIENT CONDITION EN ROUTE <u>2</u>						2 - URGENT								
PATIENT CONDITION-HOSPITAL _____						3 - CRITICAL								
REFUSAL _____ REFUSAL (AMA) _____						4 - STABLE								
DISREGARDED BY _____						5 - CPR								
REASON NO TRANSPORT _____						6 - POSSIBLE DOA								
REASON FOR DISREGARD _____						GOA _____ POV _____ DOS _____								
IN CHARGE DRIVER _____ CERTIFICATION <u>SMTP</u>						FIRST RESPONDERS: _____								
ATTENDANT _____ CERTIFICATION _____						FIRE/RESCUE: _____								
ATTENDANT _____ CERTIFICATION _____						SUPERVISOR: _____								

DOB: (10Y) SEX: M ORDERED BY DR. M.D.
MR#: DATE PERFORMED: 95 AT 12:00 HRS.
ROOM: PEDI INTENSIVE CAR REQUISITION NUMBER:
* REQUEST COPY *
INDICATIONS: CHECK FOR BRAIN FLOW

EXAM(S) PERFORMED: NM CEREBRAL BLOOD FLOW

~~PERFUSION SCAN - 95:~~
CLINICAL INDICATION: History of MVA; determination of brain perfusion.

IMPRESSION:

1. No evidence of intracerebral blood flow which is consistent with the clinical diagnosis of brain death.

COMMENT: The study was performed with 10 millicuries of Tc-99m-DTPA given intravenously at the bedside. Dynamic sequential images demonstrate no evidence for anterior or middle cerebral artery blood flow. There is no activity in the dural sinuses. These findings are consistent with the clinical diagnosis of brain death.

M.D.

RADIOLOGIST(S):

, M.D.

, M.D.

APPROVED BY:

, M.D.

Dictated on: 95 AT 14:37 HRS.

DOB: (10Y) SEX: M ORDERED BY DR. M.D.
MR#: DATE PERFORMED: 1/95 AT 20:00 HRS.
ROOM: EMERGENCY CNTR. TR REQUISITION NUMBER:
* REQUEST COPY *
INDICATIONS: SAME

EXAM(S) PERFORMED: CHEST 1 VIEW, FRONTAL

CHEST, 1/95:

CLINICAL INDICATION: MVA, post intubation.

COMMENT: Portable frontal view of the chest, taken at 2100 hours, is compared to the prior study from 2045 hours on the same date. The endotracheal tube has been retracted, however, it is still in the right mainstem bronchus. There has been interval collapse of the left upper lobe with mediastinal shift from right to left. Hyperaeration of the right lung is noted.

IMPRESSION:

1. Intubation of the right mainstem bronchus with collapse of the left upper lobe. The trauma service was informed of this immediately after its discovery.

M.D.

RADIOLOGIST(S):

M.D.

M.D.

APPROVED BY:

M.D.

1/95 AT 02:17 HRS.

DOB: (10Y) SEX: M ORDERED BY DR. M.D.
MR#: DATE PERFORMED: 11/95 AT 18:45 HRS.
ROOM: EMERGENCY CNTR. TR REQUISITION NUMBER:
* REQUEST COPY *
INDICATIONS: SAME

EXAM(S) PERFORMED: SPINE CERVICAL MIN 4 VWS

CERVICAL SPINE, 11/95:

CLINICAL INDICATION: MVA.

COMMENT: Frontal and lateral views of the cervical spine reveal increased soft tissue density in the region of the cervicocranium in keeping with a hematoma. There is distraction between the occipital condyles and C1, without anterior or posterior subluxation, in keeping with occipital atlanto dissociation. All seven cervical vertebrae were identified on the lateral projection, and no fractures were identified. The tip of the endotracheal tube is noted at the thoracic inlet.

IMPRESSION:

1. Findings in keeping with occipital atlanto dissociation with distraction and no significant anterior or posterior subluxation.

M.D.

RADIOLOGIST(S):

, M.D.

, M.D.

APPROVED BY:

, M.D.

DICTATED ON: 11/95 AT 09:04 HRS.

DOB: (10Y) SEX: M ORDERED BY DR. M.D.
MR#: DATE PERFORMED: 10/95 AT 18:45 HRS.
ROOM: EMERGENCY CNTR. TR REQUISITION NUMBER:
* REQUEST COPY *
INDICATIONS: SMAE

EXAM(S) PERFORMED: CHEST 1 VIEW, FRONTAL

CHEST, 10/95:

CLINICAL INDICATION: MVA.

COMMENT: Portable frontal view of the chest, taken at 1915 hours on 10/95, reveals an endotracheal tube 4.5 cm above the carina. The visualized lungs are clear and the mediastinum unremarkable. The regional skeleton is intact.

IMPRESSION:

1. Negative for acute traumatic injury to the thorax.

M.D.

RADIOLOGIST(S):

, M.D.

, M.D.

APPROVED BY:

, M.D.

DICTATED ON: 10/95 AT 02:24 HRS.

[REDACTED] UNIVERSITY



[REDACTED] 1996

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Indiana [REDACTED]

SCHOOL OF MEDICINE

RE:Task [REDACTED]

[REDACTED]

At your request I have recently reviewed the autopsy report and three clinical photographs taken at the autopsy of [REDACTED] (Autopsy # [REDACTED] a right front seat passenger in a Plymouth Voyager equipped with air bag restraining devices who died as a result of a vehicular collision.

In my opinion the shoulder harness of the three point restraint was not in use at the time of the accident. There is no gross evidence of neck or chest abrasion or injury indicating contact with such a device. Furthermore, there is no evidence of injury noted in the autopsy report prepared by [REDACTED]

I also continue to base my opinion upon items which I enumerated in my letter of [REDACTED] 1995. These include sliding abrasions of the face which extend to the sides as well as the absence of fractures of the face or skull indicating well distributed forces to the head with concomitant shearing forces to the atlanto-occipital region of the neck.

Sincerely,

A handwritten signature in cursive script, appearing to read 'A. S. Ph...', written over a blacked-out rectangular area.

[REDACTED] MD

[REDACTED] Professor of Pathology and Laboratory Medicine

[REDACTED] Forensic Pathology

DEPARTMENT OF PATHOLOGY
AND LABORATORY MEDICINE

[REDACTED] Science

[REDACTED]
[REDACTED]
[REDACTED] Indiana
[REDACTED]
[REDACTED]

Appendix R:

REPORT OF CONSULTANT ENGINEER

[REDACTED]
REGISTERED PROFESSIONAL ENGINEER

[REDACTED] INDIANA, [REDACTED]

[REDACTED]
TELEPHONE [REDACTED]

FAX [REDACTED]

[REDACTED] 1997

[REDACTED]
[REDACTED] Transportation Research Center
[REDACTED]
[REDACTED] IN
[REDACTED]

Re: TRC case SCI 95-08

[REDACTED]

This letter will report my findings concerning the subject crash in which a 1995 Plymouth Voyager minivan (the case vehicle) was westbound on a divided highway and a 1985 Chevrolet Suburban 4-door utility vehicle was eastbound on the same road in Texas in [REDACTED] 1995. The Plymouth Voyager was starting to make a left turn in front of the Chevrolet Suburban and in the impact the right front of the Plymouth Voyager engaged the left front of the Chevrolet Suburban. The driver and passenger airbags in the Voyager deployed, and the right front passenger, a 9 year old boy, died of injuries sustained in the accident. You asked me to examine the seat belts and to determine if the right front occupant of the case vehicle was using his seat belt at the time of the accident.

Sources

1. Police accident report for this accident.
2. Information that the delta-v of the case vehicle was approximately 18 mph based on your measurements of the two vehicles and your reconstruction using recognized computer programs and techniques.
3. Summaries of the interviews of [REDACTED] (two interviews), EMT [REDACTED] EMT [REDACTED], eyewitness [REDACTED] (two interviews), Suburban driver [REDACTED] (two interviews), and

eyewitness [REDACTED]

4. Information that at the time of the crash the right front occupant of the case vehicle was 9 years old, weighed approximately 65 lbs, and was not using a booster seat.
5. Information that the vehicle mileage was 2850 at the time of the accident.
6. Information concerning injuries to the vehicle occupants.
7. My inspection at your office of materials which had previously been removed from the case vehicle; the passenger seat belt outboard assembly, the passenger air bag module, and the passenger door armrest cover.

Findings

You determined that the case vehicle driver was a 130 lb 5'6" female who reports that she was 3-point restrained. You found abrasions of the B-pillar guide ring and a broken plastic trim piece at the base of the B-pillar which support use of the restraint system by this occupant. You also found that she sustained facial abrasions, her seat was adjusted to mid position, and there were lipstick transfers to the driver's air bag at a location consistent with her use of seat belts.

You also determined that the left second row passenger was a 12-year old female weighing 85 lbs, who reports using the 3-point restraint system. She sustained a contusion of the left shoulder and base of the neck attributable to the seat belt. You found that the D-ring on her C-pillar was abraded but there was no transfer of the D-ring material to the webbing of her seat belt. This pattern of injuries and witness marks supports her report of using the seat belt.

The right rear passenger was a 4-year old 40 lb female who reports using the seat belt with the shoulder portion behind her back. She sustained no seat belt markings on her body but you found that the D-ring in her seated position was slightly abraded, and there was no transfer of material from the D-ring to the webbing. The findings are consistent with use of the seat belt in the manner described.

At the right front position, the case vehicle utilizes a three-point, continuous loop, single retractor belt system with a free-sliding latch plate. I inspected and with your assistance photographed the right front passenger seat belt outboard assembly, the air bag module and the cover flap. The passenger side inboard seat belt assembly, the latch plate, and the mounting hardware for the outboard assembly were not available for inspection. I examined the outboard anchor and adjacent webbing, the entire length of the webbing along both sides, and the D-ring. The webbing was wrinkled in

certain areas as a result of use and post-removal storage, and the webbing had been cut, as was reported by an EMT.

There is a blood spot on the right front restraint webbing at a location consistent with the middle of the lap of a child of this size who was wearing the lap portion of the belt. This deposit, which is visible on both sides of the webbing, results from a pooling of blood, rather than a spatter. There is no other blood deposit; in particular, there is no deposit in the area where the shoulder belt would lay across the torso beneath the face. In the area where the webbing passes through the latch plate there is a darkening. Examination of the fibers in this area under 30X magnification disclosed no abrasion of the fibers. This darkening is likely a stain but is possibly a crash load mark.

The single retractor for the right front seating position incorporates a web grabber which clamps on the webbing when the webbing is pulled strongly from the locked retractor. No marks from the web grabber were found on the webbing. (At inspection the webbing was found not threaded through the web grabber because the short cut end had been permitted to withdraw into the retractor.)

The right front passenger decedant was a 9-year old 65 lb, 55 inch tall boy. He was reported by emergency medical personnel to have the shoulder belt behind his back, but reported by his mother to have had the shoulder belt across his chest. He sustained facial abrasions and contusions, concussion, subdural hemorrhage, brain edema, and an atlanto-occipital dislocation. All of these injuries are attributable to contact with the air bag. There are no reported injuries attributable to seat belts. Autopsy photos show discoloration on both sides of the neck not mentioned in the autopsy report. These discolorations are not from shoulder belt contact because of their width, angulation, and location on the body.

You found and I confirmed that the right front passenger air bag, in addition to non-occupant related snag marks, has a blood transfer and (facial) tissue transfer in its central portion.

The right front passenger D-ring was absolutely unmarked. As mentioned, the latch plate was not available for inspection and the webbing had been cut. All of the webbing appears to be present; the two segments total about 128 inches in length.


The right front seat belt retractor is both vehicle sensitive and webbing sensitive. In static tilt testing I observed it to lock when tilted about 20 degrees forward or rearward. This indicates that this retractor would have locked during pre-impact locked wheel braking on a pavement with a friction coefficient of 0.45 as reported.

Conclusion

1. The right front passenger in the case vehicle was using the lap portion of his seat belt but had the shoulder portion behind his back. The tissue transfer and blood deposit on the air bag are from his face, as is the collection of blood on the lap portion of the webbing. The absence of blood on the torso portion of the webbing, absence of D-ring abrasions, and absence of web grabber marks in the webbing confirm the EMT's assessment that he was not using the upper torso part of the restraint.

Please let me know if I may provide additional information concerning this report.

Sincerely yours,


PMD, PE

Appendix S:

CHRONOLOGY OF FOLLOW-UP INQUIRIES

CHRONOLOGY

The following is a chronology of events and interviews that have occurred since a meeting was held at the National Transportation Safety Board's (NTSB) headquarters in Washington D.C., on [REDACTED] 1996.

- o [REDACTED] Called and left message for NTSB investigator [REDACTED] regarding obtaining names, telephone numbers, and copies of statements given to the NTSB by witnesses who were interviewed by [REDACTED] in the months following the crash in [REDACTED] Texas. These witnesses and their statements were never shared with the SCI investigator prior to the [REDACTED] meeting. Consequently the [REDACTED] was unable to interview them and the evidence provided by them was not taken under consideration by [REDACTED] prior to the completion of the case file. During the [REDACTED] meeting it was also learned that there were on-scene photos and autopsy photos that were not made available prior to this date.
- o [REDACTED] Called NTSB investigator [REDACTED] in order to have interview statements and photograph negatives sent to [REDACTED] offices in order to add to case file. SCI investigator was told that [REDACTED] was out of town and would be returning [REDACTED]
- o [REDACTED] Called NTSB offices in Washington D.C. and talked to [REDACTED]. [REDACTED] said that he was expecting to see [REDACTED] and would have him contact this [REDACTED] r.
- o [REDACTED] Called NTSB offices in Washington D.C. and left a voice mail message for [REDACTED] letting her know the difficulty I was having contacting [REDACTED] and acquiring the promised information.
- o [REDACTED] Received call from [REDACTED] and discussed with him the need to acquire the witness statements and their telephone numbers in order for us to interview and include with case file. [REDACTED] told me he would give me their telephone numbers and E-mail their statements; he added that I should contact [REDACTED] at NTSB offices in Washington, D.C. to obtain negatives for on-scene and autopsy photographs.
- o [REDACTED] Called [REDACTED] at NTSB offices in Washington, D.C. and left message on his voice mail letting him know that I wanted to obtain negatives for autopsy and on-scene photographs.
- o [REDACTED] Recontacted [REDACTED] telling him that I never received the witness statements he was supposed to E-mail me on [REDACTED]. Went over my E-mail address with [REDACTED] and he said he would try it again. Never received statements.
- o [REDACTED] Called [REDACTED] my COTR for the [REDACTED] and informed him of the lack of quick response from NTSB personnel with regard to obtaining documents that were asked for during the [REDACTED] meeting. [REDACTED] said he would make the necessary calls and get the needed information for me. [REDACTED] also asked me to contact the new witnesses and interview them upon receipt of their statements.

CHRONOLOGY OF FOLLOW-UP INQUIRIES (Continued)

- o [REDACTED] Received voice mail from [REDACTED] asking for my FAX telephone number in order to FAX me copies of witness statements that SCI had requested at the [REDACTED] meeting in [REDACTED]. A short time later our this SCI office received an eight page document from [REDACTED] at NTSB offices in Washington, D.C. This document was the Factual Report of the NTSB's investigation which included a synopsis of all the interviews. [REDACTED] and other NTSB personnel had conducted during the [REDACTED] Texas case.
- o [REDACTED] Made numerous attempts to contact [REDACTED] and [REDACTED] and to locate [REDACTED] who reportedly had moved from the area. Left messages at [REDACTED] place of work and at [REDACTED] residence, asking for a return call.
- o [REDACTED] Contacted and interviewed [REDACTED] in the morning and had two follow-up interviews later that day. According to [REDACTED], he witnessed the crash in question while stopped at the stop sign at the street that the case vehicle was attempting to turn onto. [REDACTED] reportedly, was the first person to view the 9 year-old boy in the case vehicle. Initially, [REDACTED] who was standing at the right front passenger door of the case vehicle when he made his assessment, believed he saw the belt on the boy's shoulder but couldn't swear to it since the crash was over a year ago. [REDACTED] did feel certain that no one had moved the boy's shoulder belt prior to the arrival of the EMTs. After being told of the EMT's report stating that the boy's shoulder belt was found behind him, he stated that he was certain and would swear to it that if the EMT's reported finding the boy's shoulder belt behind his back on their report, then that's how it was because no one moved the child prior to the arrival of the EMTs. [REDACTED] remained at the scene of the crash until he filled out a report for the Police. [REDACTED] did not know the deceased victims family prior to this crash.
- o [REDACTED] Contacted and interviewed [REDACTED] in the evening. According to [REDACTED], he was following the case vehicle home from soccer practice and watched it turn left (i.e., [REDACTED] son and the 9 year-old boy in the case vehicle were teammates, and both families attended the same church). [REDACTED] was curious why they were turning there and happened to watched them out of his rear-view mirror as they collided with vehicle #2. [REDACTED] stated that there were two other people at the case vehicle by the time he was able to make a U-turn and go back to the intersection. According to [REDACTED] when he got to the van he was pretty sure the right front passenger door was opened. [REDACTED] remembers seeing the lap belt on the boy but not the shoulder belt. [REDACTED] stated that he remembered that the boy was sitting upright, but didn't recall how his head was facing. He did recall that the mom was standing over the boy and he positioned himself so he could help the mother if he was asked to during this time. He did remember someone saying not to move the boy. [REDACTED] didn't recall seeing someone move the boy or the belts after he got there, but did say that someone could have moved the boy or the belts prior to his arrival. [REDACTED] did recall a nurse being there at the van, or someone who said they were, but he didn't know how much she treated the right front passenger, if at all. According to [REDACTED] took the girls (i.e., left and right second seated passengers) out of the van and over to [REDACTED] house.

CHRONOLOGY OF FOLLOW-UP INQUIRIES (Continued)

- o [REDACTED] Contacted and re-interviewed [REDACTED] driver of vehicle #2 that collided with the case vehicle. [REDACTED] was previously interviewed during our initial investigation. According to [REDACTED] when he came to final rest, he struck the steering wheel with the corner of his mouth. He was momentarily stunned. He remembers getting out and running over to the case vehicle. He went to the driver's door and asked if everyone was okay. The mother looked over to her son and started to scream. [REDACTED] then ran over to the passenger side, saw the boy and indicated to this investigator that he thought the boy looked knocked out. He then ran off looking for help from the neighbors. According to [REDACTED] he's pretty sure the boy was wearing his seatbelt; the boy was leaning forward and slightly to the right, against his belt. He thought the belt was holding the boy back.
- o [REDACTED] Sent out interview transcripts to all three interviewees in order to have statements signed. Transcripts were sent Federal Express with an enclosed, priority mail, return-addressed envelope. See APPENDIX T.
- o [REDACTED] Received signed statement back from driver of Vehicle #2, [REDACTED]
- o [REDACTED] Received signed statement back from witness, [REDACTED]
- o [REDACTED] Called [REDACTED] investigating engineer for law firm representing the [REDACTED] family. Told [REDACTED] that we would like to interview [REDACTED] and that we would like to take a look at the fatal occupant's safety belt in order to have our own expert examine it. [REDACTED] said he would get back to me.
- o [REDACTED] Called [REDACTED] (witness), asking about signed statement. Mr. [REDACTED] stated that Federal Express tried to deliver our envelope and left him a note; but he said he forgot to call them. [REDACTED] ask us to resend. Resent statement!
- o [REDACTED] Received signed statement back from [REDACTED]
- o [REDACTED] called to inform me that the attorney for the [REDACTED] has agreed to let me interview [REDACTED] and also inspect the safety belt. The only problem is that the interview will have to be after the attorney and the [REDACTED], who are presently on vacation, return from vacation.
- o [REDACTED] Attorney, [REDACTED] secretary called to set up a date and time to interview [REDACTED]
- o [REDACTED] Talked to [REDACTED]'s secretary and agreed to conduct the interview with [REDACTED] on [REDACTED] between 1:15 - 1:30 p.m.
- o [REDACTED] Talked to [REDACTED] regarding safety belt inspection. [REDACTED] stated that he thought that [REDACTED] was going to ship the safety belt off to Chrysler in order for them to inspect it prior to our inspection. [REDACTED] wasn't sure what Mr.

CHRONOLOGY OF FOLLOW-UP INQUIRIES (Continued)

- [REDACTED] wanted to do, so he suggested that I ask [REDACTED] during interview what the situation regarding the safety belt was.
- o [REDACTED] Conducted interview with [REDACTED], see APPENDIX T. Talked to [REDACTED] about acquiring the safety belt for inspection and was told he would get back to me by the middle of next week concerning when I would obtain it.
 - o [REDACTED]: Talked to [REDACTED] regarding status of safety belt. [REDACTED] said that they (i.e., law firm) are still waiting to here back from Chrysler, and as soon as they get Chrysler's okay, it would be sent.
 - o [REDACTED] Received safety belt from [REDACTED] law firm.
 - o [REDACTED] came by the SCI offices to inspect the case vehicle's right front safety belt.
 - o [REDACTED] Received [REDACTED] safety belt inspection report.

Appendix T:

SIGNED WITNESS STATEMENTS

AND

INTERVIEW WITH CASE VEHICLE DRIVER

1996

Please read the paragraph below and sign above your name. I have enclosed a U.S. Express Mail envelope for your convenience. Please drop this off at your nearest U.S. Post Office as soon as possible.

Thank you

I, [REDACTED], presently residing at [REDACTED] freely and voluntarily make the following statement to [REDACTED] who has advised me he is conducting an official investigation for the National Highway Traffic Safety Administration (NHTSA), United States Department of Transportation, pursuant to the responsibilities and authority delegated to NHTSA by the Secretary of Transportation under the National Traffic and Motor Vehicle Safety Act of 1966. [REDACTED] has solicited my cooperation in this investigation but offered me no promises of benefit in return therefor. In addition, [REDACTED] has advised that I am under no compulsion to respond to questions I might be asked.

Interview with [REDACTED]

[REDACTED]

Driver of vehicle #2, (Suburban)

Interviewed in p.m., [REDACTED] 1996

1. Tell me what happened after the crash? Give me a sequence of events.

When I came to a stop, I hit the steering wheel with the corner of my mouth. I was stunned. I got out of the car, went over the driver's side and yelled "Is everyone ok?" The mother looked at the boy and started screaming. I ran over to the passenger side, saw the boy and he looked knocked out. I then ran off trying to get help from some of the neighbors. I got help at the second house I went to - the neighbor at the northeast corner. After that I ran back to the lawn at the northwest corner, about twenty feet away from the van.

2. Did you go back to look in the van?

No, too many people. I wanted to, but they kept me away from going.

3. Do you remember the right front door being open?

Yes, after I ran back from the neighbors to get help. Yes, I'm pretty sure because the window was up.

4. How was the boy positioned when you first saw him?

I ran up to the window, I'm pretty positive he was wearing his seatbelt. I'm pretty sure he was leaning forward, slightly to the right, against his belt. I think the belt was holding him back.

5. Are you pretty sure of the belt use?

Pretty positive. I can picture it, the blood coming down his nose. Walking away, I kept wondering how he could be so hurt with his seatbelt on. Blood was dripping onto his lap from his nose.

Initials [REDACTED]

6. Did you notice the lap belt?

^{any}
I didn't see ~~no~~ belt on him. [REDACTED]

7. How many other people came up to look at the boy? How many?

Lots of people. Maybe fifteen around the van and the mom. Seven around me and only a couple around the boy.

8. How many people tended to the child?

I would say maybe, I don't really know - just a couple. This nurse was there. I heard someone say that they were afraid to "mess with him" because of a possible fractured neck. I had no clue as what was going on over there.

9. Did the mother remain in van?

No, she got out, took her daughter out. I only saw one daughter.

10. How long after the crash did the mother get out of the van?

I don't know, maybe until the time I got back from getting help from the neighbors. Maybe two minutes.

11. How many of these people did you know?

Besides the [REDACTED], none. Maybe one, a friend of the [REDACTED] from church. He looked familiar. He was the first guy I remembered. I recognized him from church.

12. Do you know or did you see if someone moved him?

No, I have no idea if someone would have touched him. ~~When I was standing there, I was in~~
~~a fog.~~ There was a lot of commotion around.
[REDACTED]

Initials [REDACTED]

13. Do you know of a nurse that was at the van?

^{I thought}
I talked to a lady who ~~said she~~ ^{SP2:} was a nurse. I was upset because the EMTs were being very careful with the boy - too slow. ^{She told me they were being slow because they} have to take every precaution and not to worry ^{I know she looked at him, she mentioned the boy having a} because from what she saw she thought ^{he was going} to be all right ^{fractured neck.} That's why they were being so careful and slow.

14. Did she have a nurse's uniform on?

Don't remember, don't think so.

15. Did she say she was a nurse?

Didn't say it, but she seemed like one because she seemed knowledgeable of medical terms.

16. Did anyone approach you before you went to the van?

No one came up to me prior to me going up the ~~van~~ van. I don't remember anyone coming up to me, if they did, I ran right past them because I was concerned for the family in the van.

Initials 

[REDACTED] UNIVERSITY

[REDACTED] 1996

SCHOOL OF PUBLIC
AND ENVIRONMENTAL
AFFAIRS

[REDACTED]

[REDACTED]

[REDACTED]

I have attached a copy of our telephone interview. Please initial each page in the designated place and please edit your responses if you feel you were misquoted.

Please read the paragraph below and sign above your name. I have enclosed a U.S. Express Mail envelope for your convenience. Please drop this off at your nearest U.S. Post Office as soon as possible.

Thank you,

[REDACTED]

I, [REDACTED], presently residing at [REDACTED], freely and voluntarily make the following statement to [REDACTED], who has advised me he is conducting an official investigation for the National Highway Traffic Safety Administration (NHTSA), United States Department of Transportation, pursuant to the responsibilities and authority delegated to NHTSA by the Secretary of Transportation under the National Traffic and Motor Vehicle Safety Act of 1966. [REDACTED] has solicited my cooperation in this investigation but offered me no promises of benefit in return therefor. In addition, [REDACTED] has advised that I am under no compulsion to respond to questions I might be asked.

[REDACTED]

TRANSPORTATION
RESEARCH CENTER

[REDACTED]

[REDACTED]

[REDACTED]

██████/96 Interview with ██████████
home address ██████████
Third person to van, interviewed ████████/96 in the evening

1. What happened that afternoon?

We (my son and I) were following the ████████ from soccer practice. I was in center lane, she was in the left turn lane. I was curious why she was turning there so I watched her in my rear view mirrors. When the truck hit her I saw van lift up and turn 90 degrees.

2. Where were you when crash occurred?

I was driving west and had just passed the intersection. I saw accident out my side view mirror.

3. Did you get out and look at right front passenger?

Yes, through the right front door. I'm pretty sure it was opened by then.

4. Where you the first one to the van or was someone already there?

I was not the first one to the van, there were two others there before me.

5. Was he wearing lap and shoulder belt?

He had lap belt on, don't remember seeing shoulder belt.

6. Where were you standing when you made this assessment?

I kind of positioned myself so I could help ████████ if I was asked. ██████████ said to me ████████ "he looks real bad." I remember someone saying don't move him.

7. How was the boy positioned when you came upon van?

He was upright, his head down facing (unknown direction), the mom was standing over him. Someone leaned his head back, I think, I'm not really sure. I don't remember seeing shoulder harness.

8. Did you see anyone else approach the van, other than yourself prior to EMTs arriving?

██████████ and maybe a neighbor.

Initials ██████████

9. Do you know their name? Phone #?

I think a homeowner came out at the southeast corner house.

10. Is there anyone else you know of that might be of some help to our investigation.

No.

11. Could someone have moved the boy prior to your observing him?

Someone could have because I had to go make a u-turn. By the time I got there someone may have, I don't know. There were two other people there at the door mother and a nurse.

12. Do you recall a person saying they were a nurse?

I think so, I do recall that. I don't know how much she treated him, if at all. Other than taking
—a pulse which I did also [REDACTED]

13. Did you notice the girls in the backseat?

Yes.

14. Were they belted?

I didn't notice belt use. [REDACTED]

15. Who took girls out of van?

[REDACTED] help girls out and took them to our house. [REDACTED] went with the ambulance.

16. Did mother or girls mention belt use?

—No [REDACTED]

17. Did you know [REDACTED] family prior to crash?

Yes, we go to church with them, our boys played soccer together.

Initials [REDACTED]

[REDACTED] 1996

[REDACTED]
[REDACTED]
[REDACTED] TX [REDACTED]
[REDACTED]

SCHOOL OF PUBLIC
AND ENVIRONMENTAL
AFFAIRS

I have attached a copy of our telephone interview. Please initial each page in the designated place and please edit your responses if you feel you were misquoted.

Please read the paragraph below and sign above your name. I have enclosed a U.S. Express Mail envelope for your convenience. Please drop this off at your nearest U.S. Post Office as soon as possible.

Thank you,
[REDACTED]

I, [REDACTED] presently residing at [REDACTED] who has freely and voluntarily make the following statement to [REDACTED] who has advised me he is conducting an official investigation for the National Highway Traffic Safety Administration (NHTSA), United States Department of Transportation, pursuant to the responsibilities and authority delegated to NHTSA by the Secretary of Transportation under the National Traffic and Motor Vehicle Safety Act of 1966. [REDACTED] has solicited my cooperation in this investigation but offered me no promises of benefit in return therefor. In addition, [REDACTED] has advised that I am under no compulsion to respond to questions I might be asked.

[REDACTED]

TRANSPORTATION
RESEARCH CENTER

[REDACTED]
[REDACTED]
[REDACTED]

96
work address
Eyewitness - first person to van
Initially interviewed in a.m., had 2 follow-up interviews with questions in afternoon

1. What did you see?

I saw the minivan with the family and the Suburban with the teenager both stopped. Both vehicles started up, and hit in the intersection. The Suburban turned the minivan back to the east, 90 degrees. Both vehicles were going 10-15 mph. I saw no avoidance maneuvers. It was a minor crash, no one should have been hurt. Both vehicles accelerated into each other.

2. Where were you when crash occurred?

I was on the road the minivan was turning onto. It happened right in front of me. I was north going to turn east.

3. Did you get out and look at right front passenger?

Yes, I ran over to the Suburban first. Then to the minivan. I ran up to the right side, told the mom leave him be. Don't move him.

4. Was he wearing lap and shoulder belt? *I Believe that the boy was belted. Can't Remember for Sure*
~~The boy was definitely belted. I remember the belt being across his shoulder and chest. I can't see lap belt.~~

5. Where were you standing when you made this assessment?

At the right front passenger door.

6. How was the boy positioned when you came upon van?

His head was turned to left about 45 degrees, his body leaning to the left towards driver.

7. Did you notice blood on boy?

A little by his nose and mouth, I saw swelling to his forehead. There was no running blood that I saw.

Initial

8. Was there blood on his clothing?

No.

9. You're certain the boy had his shoulder belt on?

I couldn't swear the boy had belt on, it's been over a year ago. I thought he did.

10. Why wouldn't you swear to the boy's belt use? (I explained how this was critical to the investigation)

I said I believe I saw it on his shoulder, I can't go back and picture in my mind something that happened 1 ½ years ago.

11. Did you see anyone move the boy or the belts?

It's possible Emt's moved the belts,
I saw no one touch the belt on the boy. ~~I did see EMTs move the belts,~~ but as far as I know, no one else touched the belts.

12. How can you be certain no one moved belt or child from where you were standing?

The nurse seemed to know of possible injuries. The mom wanted to move him out but I told the mom of possible neck injuries and she agreed not to move. I did feel for a pulse.

13. Did you see anyone else approach van, other than yourself prior to EMTs arriving?

Four or five people, one was a nurse (she said so). The nurse was with her husband; ~~her husband never got out of their car.~~ *he got out of car & talked with the boy's mother who he seemed to know*

14. How many people came upon crash before you?

None, I was first.

15. Do you know their name? Phone #?

I didn't know anyone there.

16. Is there anyone else you know of that might be of some help to our investigation?

No, not really.

Initial 

17a. Did you notice the girls in the back seat?

Yes.

17b. Were they belted?

No, I didn't notice them, just the mom and boy.

18. Who took girls out of van?

The girls stepped out. Someone took them, the mom stayed there with the boy.

19. Did mother or girls mention belt use?

No, I don't recall.

20. Did you know [REDACTED] family prior to crash?

Never met them before.

21. When told of EMTs report and that it stated that they found belt behind him, [REDACTED] stated:

If EMTs said the belt was behind him, I would be certain and swear to it that's how it was because no one moved the child prior to the EMTs arrival.

22. How long did you hang around next to van?

I waited next to the van until the woman who described herself as nurse arrived, then I moved back and hung around until the EMT's and police came. I then had to fill out a report for the police.

Initial [REDACTED]

[REDACTED] The reason I am following up with is initially I was never able to go along with the guys from the [REDACTED] and talk to you directly. There has been a whole bunch of things that have come up in [REDACTED] when I've met with the NTSB regarding this case and interviews with some of the other witnesses that we never got to talk with and were never given the transcripts of the interviews. I was told to re-interview these witnesses and at the same time see if we could interview [REDACTED] because I had never talked to her. So that is why I'm doing these interviews. In doing these interviews there were conflicting statements that were given originally to the [REDACTED]. That is why we just want to try to close this whole thing up and get all the documentation, all the interviews included in this report.

[REDACTED] Were you here in April along with [REDACTED]
[REDACTED] Yes, I was there at that time measuring the vehicles, did the scene and that but [REDACTED] figured they didn't want, preferred I didn't go with them to do the interviews. I believe [REDACTED] thought it would be best to keep it to a few people, at that time. So I am trying to understand exactly [REDACTED] what you saw and fully understand the sequence of events. Basically, we know what happened in the accident, I am going to start from the point immediately following the accident, finding out what witnesses, what other people came up to the vehicle, that you may have had contact with.

[REDACTED] OK.

[REDACTED] One witness, like I said we have had conflicting witness statements on who was first to the van. Do you recall who the first person was to the van?

[REDACTED] I don't know who the first person to the van was. I do think the first person I talked to was [REDACTED]

[REDACTED]
[REDACTED] This is the first remembrance of the person I talked with, because I know who he is.

[REDACTED] OK. Do you recall how many other people came up to you, while you were still in the van immediately after the accident? Do you have any recollection?

[REDACTED] I believe there was a neighbor and there was another woman, [REDACTED], both she and [REDACTED] were with the soccer group that we knew. Uh, there was also a woman at some point that said she had some kind of first aid training. I don't know the names of any of these people.

[REDACTED] OK.

[REDACTED] I know from looking at the reports that there were some other people, but I don't recall any of them.

[REDACTED] OK. How long after the accident did you stay inside the van?

[REDACTED] Seems like just minutes that you know that there was somebody. I just had time to

collect what was happening. As far as how the kids were and then somebody was knocking on the van door and that part seems like it was very brief, almost immediate.

OK. Do you recall who was knocking at your door?

Again, I think it was

OK. Do you recall the other driver coming up to the van?

Yes.

Before or after

After, because he came running up asking if everybody was all right, and they kind of, I don't know held him back or whatever.

Right. Now did you stay in or near the van up until the point where the paramedics (EMT's) arrived?

Well, uh, the airbags had released and there was all this stuff coming into the van. I was told by somebody to turn off the engine, sure, I didn't know even if it was smoke coming from the engine or fire or whatever. They had me get out and the girls and, uh, then as the air cleared a little bit and we realized it was the airbag, I got back in, and at that point I think some of the paramedics had arrived. Anyway, probably wasn't out for more than 3-5 minutes.

OK. Do you recall who opened the right front door, and maybe the right rear door?

I don't know.

OK. Do you recall anyone touching adjusting him, moving him maybe if he was leaning to the left, moving him back to the right, do you recall anyone moving

I don't recall anybody doing that.

OK. Did anyone say anything to you? You mentioned people said to get out because of smoke?

Yes.

OK. Who took the girls out? Did they get out with you?

They got out on their own.

OK.

There were people there to kind of take them as they got out.

██████ OK.

██████ Also, you're asking about did anybody touch him or move him or anything. This lady that had some kind of first aid training. You know I guess it was to me she was saying don't move him. She asked about getting something to cover him up with, we had a sleeping bag in back that we put over him. But, I was not watching him every minute, but to my knowledge there was nobody who moved him.

██████ OK. I don't have a heck of a lot more, I guess we just wanted to go over that point, couple of the other witnesses, basically one of the witnesses stated that there was quite a bit of talk about don't move the boy, don't move the boy and he said he didn't think there was any way that the boy would been moved, because everybody was pretty much concentrating on don't move the boy.

██████ I am pretty certain that, I went out that little bit, then got back in and he was still in that same position, he was sitting upright so, although I can't say that I didn't see anybody move him, I can say that his position did not change visibly for me.

██████ OK. From the point of when you said you got out of the van and got back in was just a couple of minutes. You think? Would seem like a minute or you're not really sure?

██████ Well it seemed like three minutes or something, no more than five.

██████ OK. That is all the questions I wanted to go over just if you recalled any other witnessed and if you recalled anyone touching ████████. The ████████, as well as us have not been able to find out who this woman was who claimed she was either, a nurse, or had some first aid training or whatever. She has never been located, I think she would have been quite a bit of help for everybody in this.

This concludes my interview.

TRANSPORTATION RESEARCH CENTER

**Indiana University
Bloomington, Indiana 47403-1599**

ON-SITE AIR BAG INVESTIGATION

SELECTED PHOTOGRAPHS

**CASE NO. - 95-08
FLEET - PRIVATE VEHICLE
LOCATION - [REDACTED] TEXAS
ACCIDENT DATE [REDACTED] 1995**

A total of eighty-two color copies of photographs are presented and referenced as Photograph #01 through Photograph #82. All of these photographs were taken by the Transportation Research Center.

[REDACTED] 1995

and

[REDACTED] 1997

Contract Number: DTNH22-94-D-17058

Prepared for:

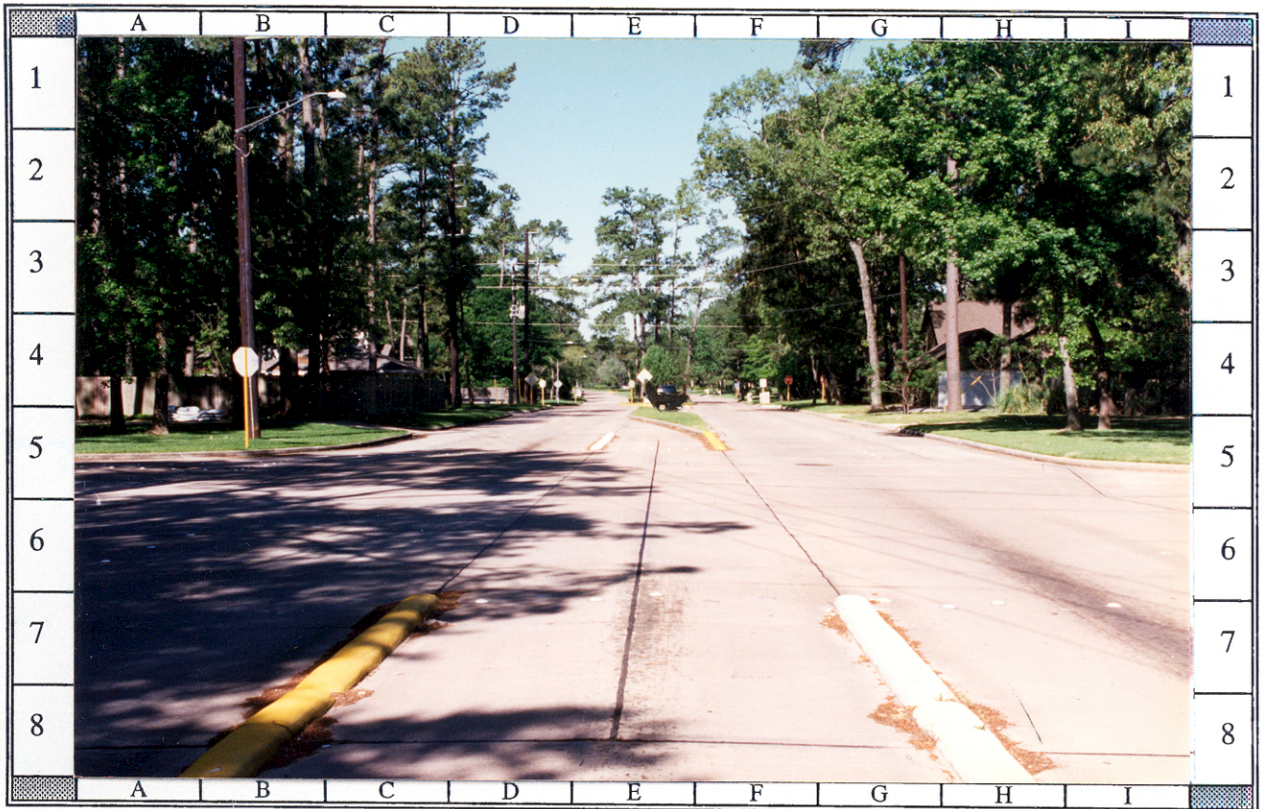
**U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590**



01 -- 1995 Plymouth Voyager's westward travel path in inside westbound lane prior to left turn lane ~ 40 m (131 ft) east of impact



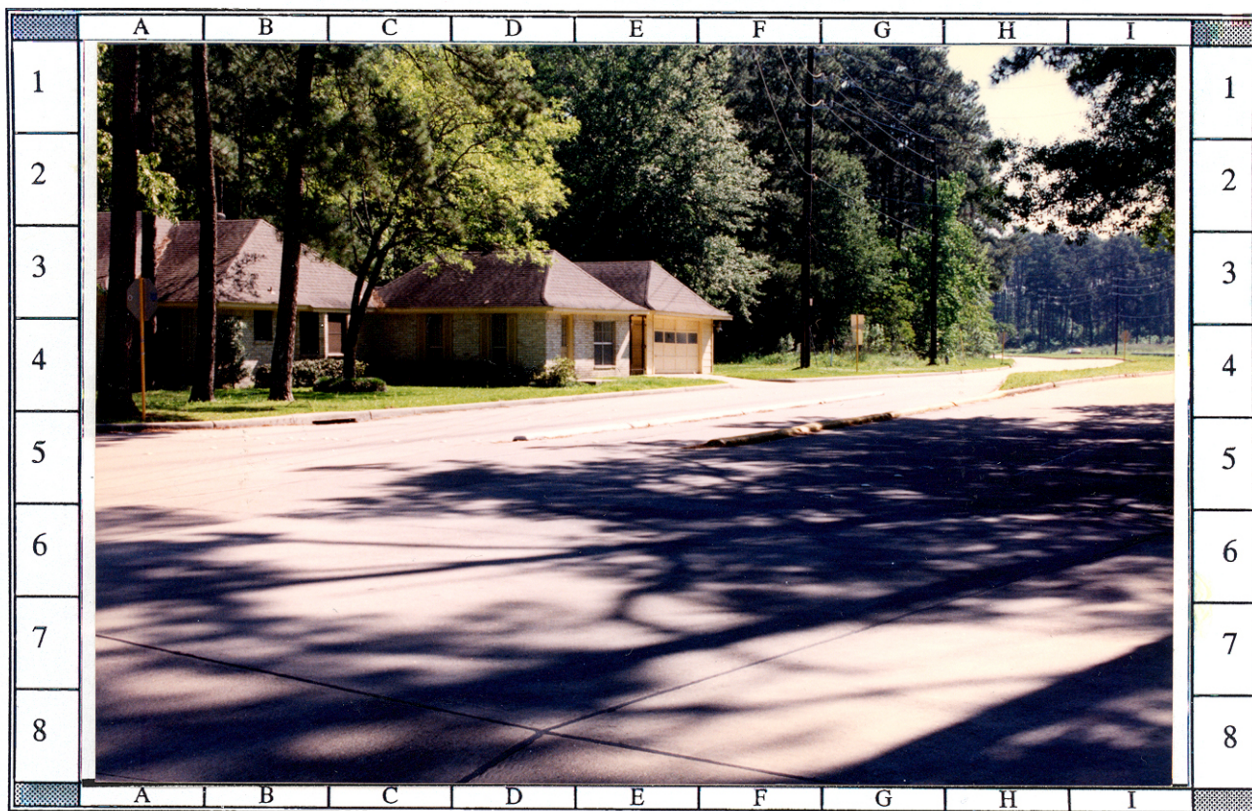
02 -- 1995 Plymouth Voyager's westward travel path entering the left-hand turn lane ~ 25 m (82 ft) east of impact



03 -- 1995 Plymouth Voyager's westward travel path in left-hand turn lane prior to turning left ~ 12 m (39 ft) east of impact



04 -- 1995 Plymouth Voyager's southwestward travel path during the left-hand turn just prior [~ 4 m (13 ft)] to impact



05 -- Northeastward view of '95 Plymouth Voyager's travel path from southwest of point of impact



06 -- Eastward view of '95 Plymouth Voyager's travel path in left-hand turn lane prior to turning left at intersection



07 -- 1985 Chevrolet Suburban's eastward travel path in inside east-bound lane ~ 30 m (98 ft) west of impact



08 -- 1985 Chevrolet Suburban's eastward travel path in inside east-bound lane ~ 17 m (56 ft) west of impact



09 -- 1985 Chevrolet Suburban's eastward travel path in inside east-bound lane ~ 5 m (16 ft) west of impact



10 -- Westward view of 1985 Chevrolet Suburban's travel path in inside eastbound lane from east of point of impact



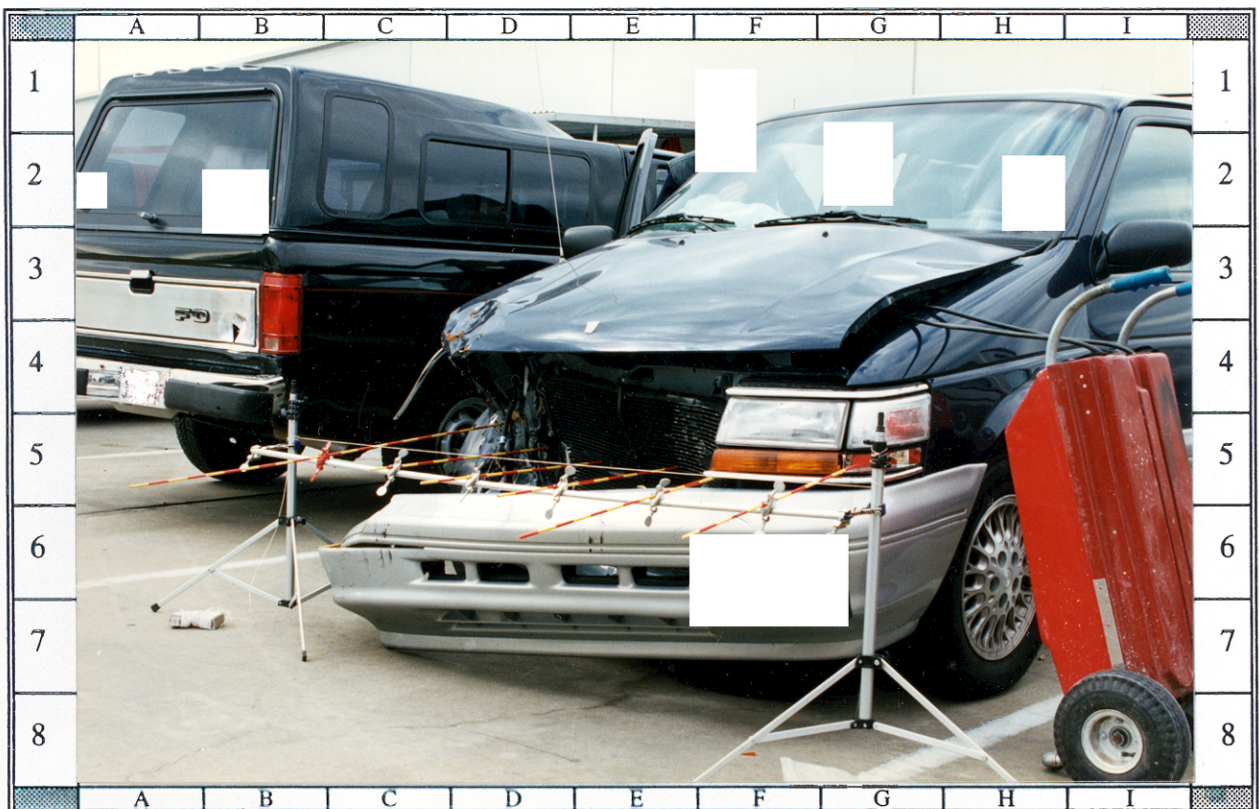
11 -- Frontal view of 1995 Plymouth Voyager's front damage with contour gauge present



12 -- Close-up of damage to 1995 Plymouth Voyager's front right corner with contour gauge present; max crush occurs @ C₆ (see cell C5)



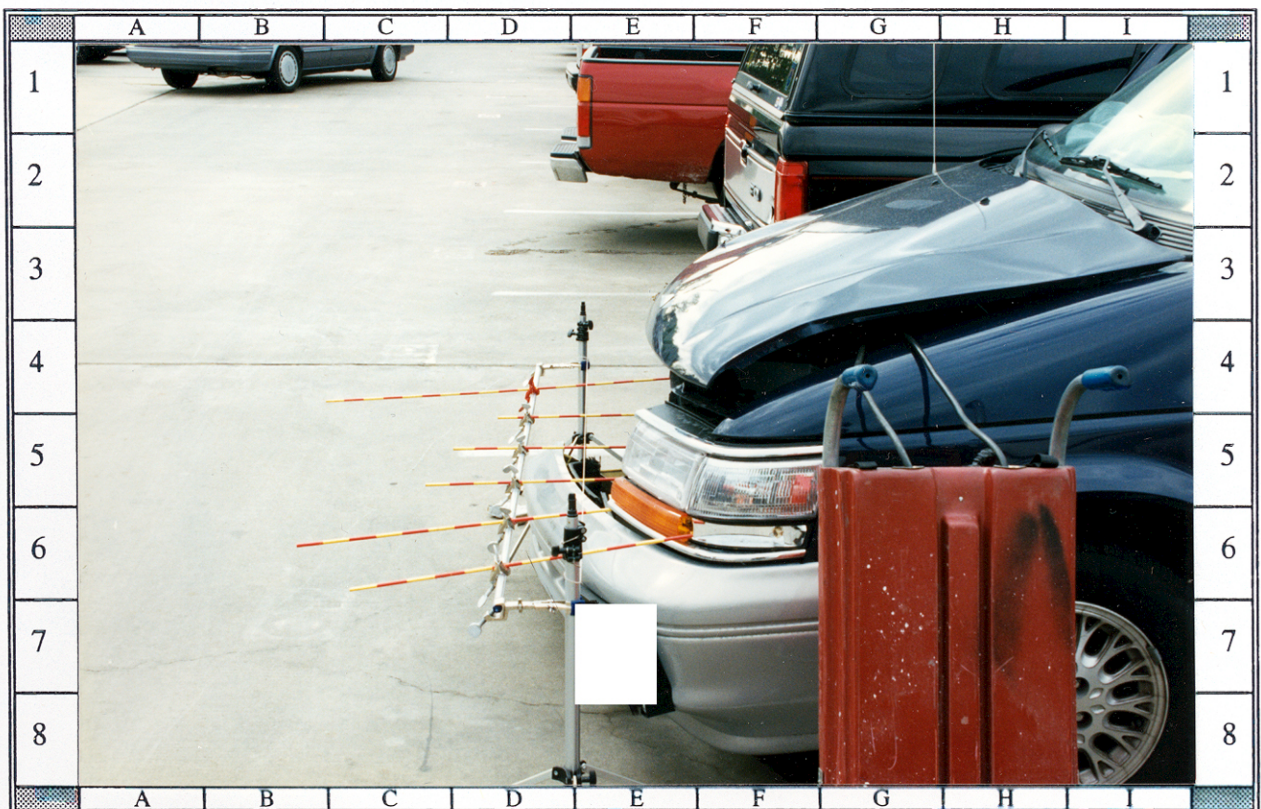
13 -- Overhead view of 1995 Plymouth Voyager's frontal crush with contour gauge present; max crush occurs @ C₆ (see cell C4)



14 -- Close-up of 1995 Plymouth Voyager's damaged front right corner viewed from ~ 45 degrees L of front with contour gauge present



15 -- 1995 Plymouth Voyager's damaged front and undamaged left side viewed from ~ 45 degrees L of front with contour gauge present



16 -- Reference line view of 1995 Plymouth Voyager's front damage from left with contour gauge present showing crush measurements



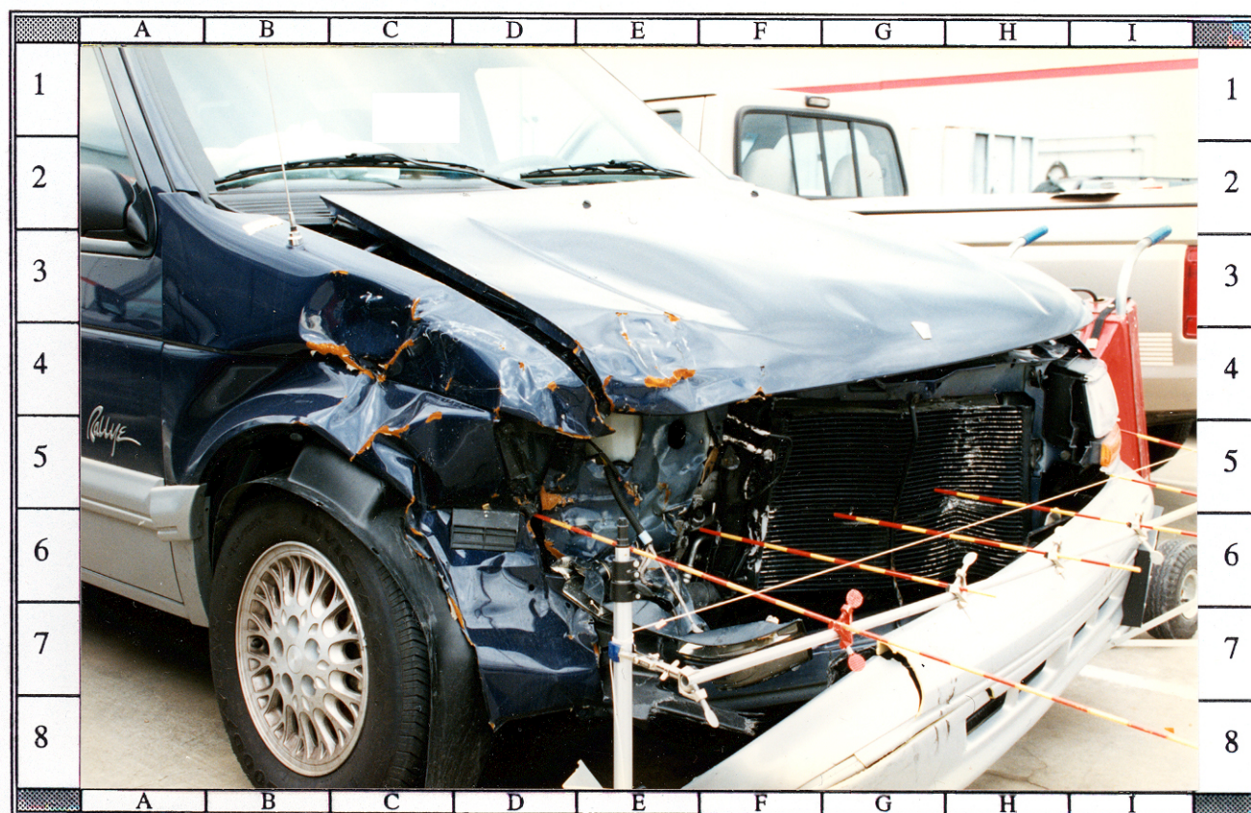
17 -- 1995 Plymouth Voyager's undamaged back and left side viewed from
~ 40 degrees left of back



18 -- 1995 Plymouth Voyager's right side & undamaged back viewed from
~ 30 degrees right of back



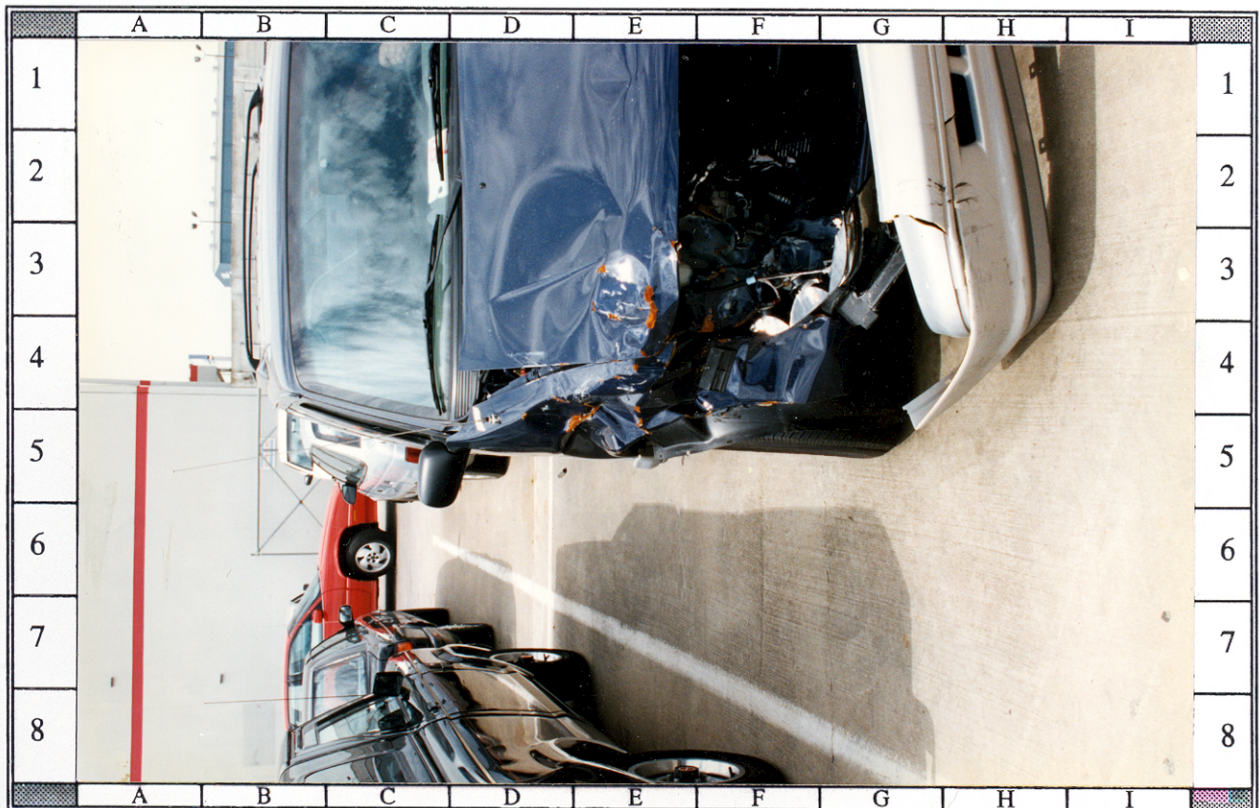
19 -- Reference line view of 1995 Plymouth Voyager's front damage from right with contour gauge present showing crush measurements



20 -- Close-up of 1995 Plymouth Voyager's damaged front right corner viewed from ~ 45 degrees R of front with contour gauge present



21 -- 1995 Plymouth Voyager's damaged front and right front side
viewed from ~ 45 degrees R of front with contour gauge present



22 -- Reference line view of 1995 Plymouth Voyager's right side from
front showing front right corner damage--without contour gauge



23 -- Interior of 1995 Plymouth Voyager's driver door showing no contact evidence; NOTE: deployed driver's air bag



24 -- 1995 Plymouth Voyager's front seating area from left showing deployed LF and RF air bags; see lipstick on LF bag (cells F5--F6)



25 -- 1995 Plymouth Voyager's left lower dash/knee bolster & steering column areas; NOTE: no evidence of contacts



26 -- 1995 Plymouth Voyager's deployed driver air bag and greenhouse areas; NOTE: contact on air bag (cells F5--G5)



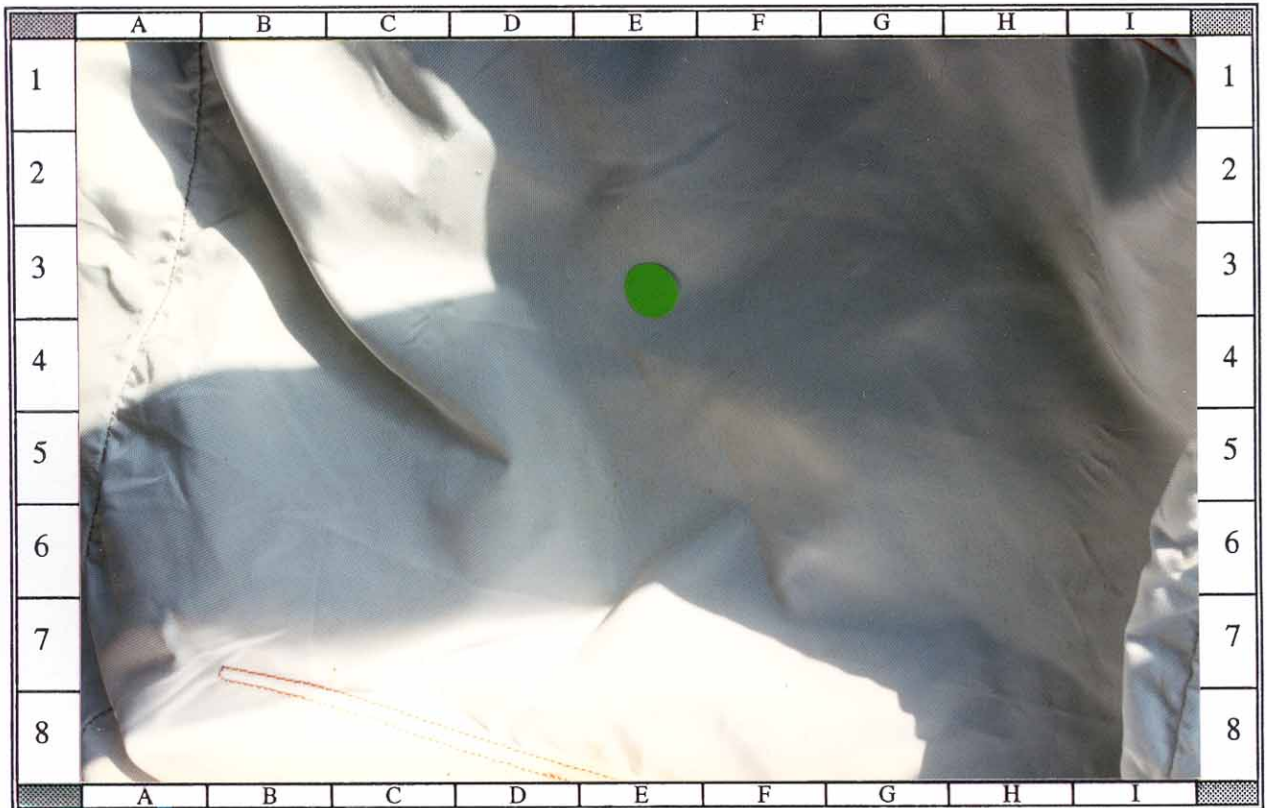
27 -- 1995 Plymouth Voyager's center console & greenhouse areas & deployed front air bags; only air bags show any contact evidence



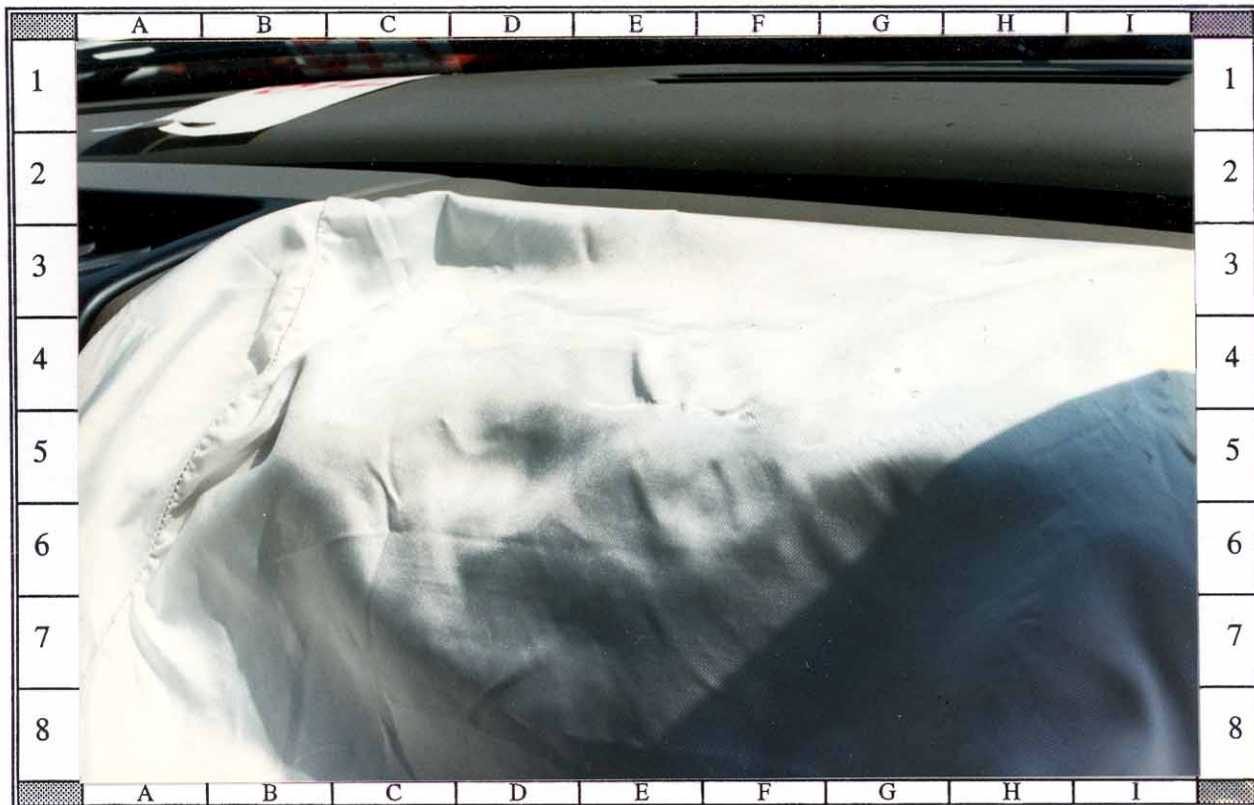
28 -- 1995 Plymouth Voyager's deployed RF air bag & greenhouse areas;
NOTE: blood smudge (cells G4--H5) and skin transfer (cell F5)



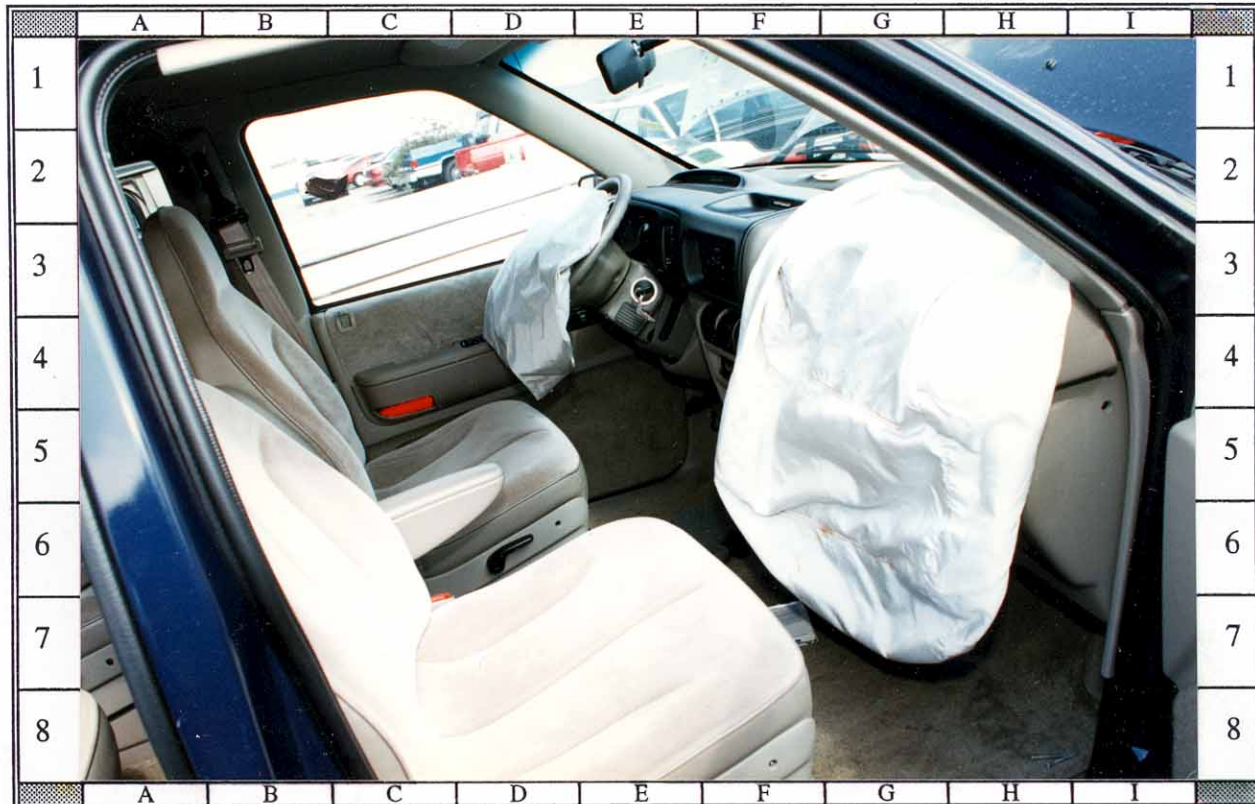
29 -- Close-up of 1995 Plymouth Voyager's deployed RF air bag showing blood smudge (cells D6--E7) and skin transfer (cell E4)



30 -- Closer-up of 1995 Plymouth Voyager's deployed RF air bag showing area of skin transfer (green dot) from deceased RF passenger



31 -- Close-up of 1995 Plymouth Voyager's deployed RF air bag showing snagging mark (E4--F4) at top--most likely during deployment



32 -- 1995 Plymouth Voyager's front seating area from right showing deployed LF & RF air bags; see blood smudge on RF bag (cell G6)



33 -- 1995 Plymouth Voyager's right upper & lower dash and glove box areas; NOTE: no evidence of contacts



34 -- 1995 Plymouth Voyager's center console and R upper & lower dash after removal of vehicle's sensor and RF air bag module



35 -- 1995 Plymouth Voyager's removed right front air bag module
viewed from the rear



36 -- 1995 Plymouth Voyager's removed air bag sensing device; this '95
Plymouth Voyager was equipped with only one sensor



37 -- Interior of 1995 Plymouth Voyager's right front door and passenger seating area; NOTE: deployed right front passenger air bag



38 -- Close-up of 1995 Plymouth Voyager's RF door handle showing a scuff mark caused by air bag's deployment (see cell E5)



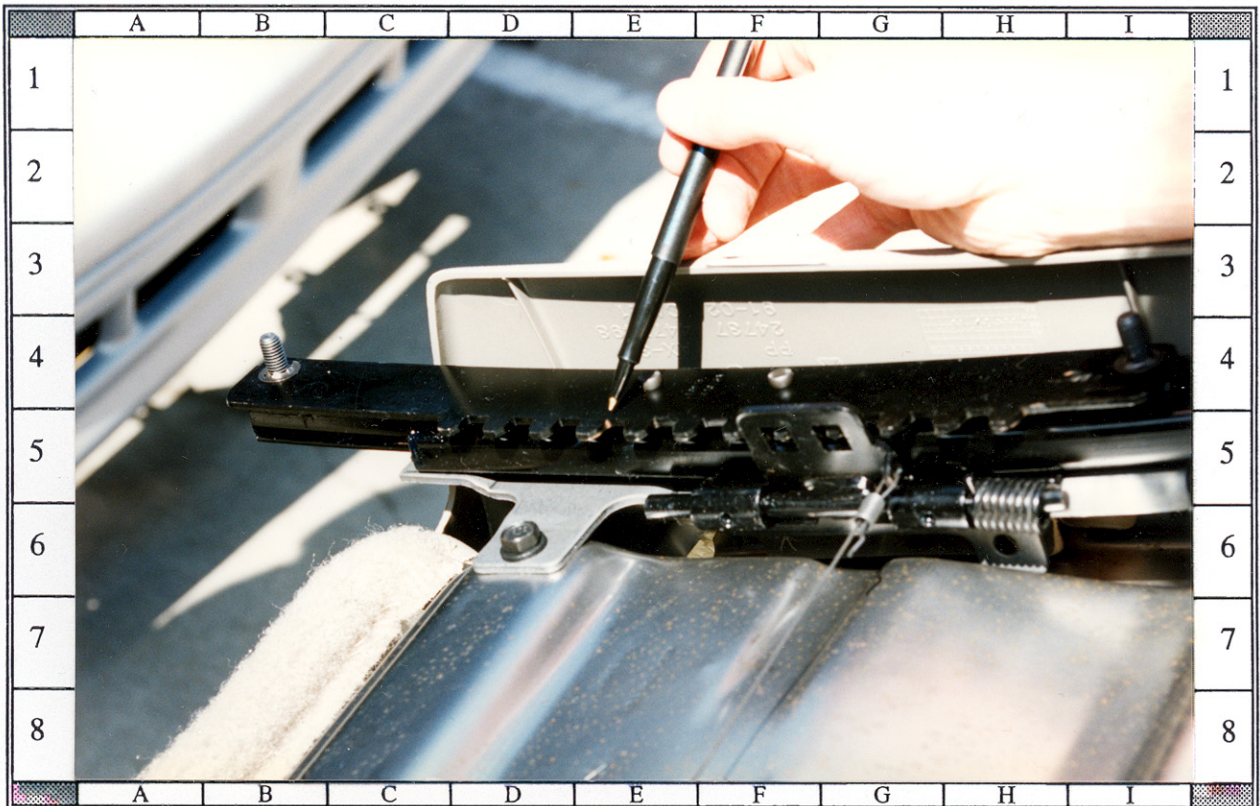
39 -- 1995 Plymouth Voyager's second row seating area; NOTE: both seats are equipped with manual 3-point belts



40 -- 1995 Plymouth Voyager's driver seat viewed from behind; NOTE: no evidence of contact to seat by 2nd row left seated passenger



41 -- 1995 Plymouth Voyager's RF seat viewed upside down & outside the vehicle from behind; NOTE: no evidence of contacts



42 -- Close-up of 1995 Plymouth Voyager's RF seat track (upside down) showing rust mark on track (cell E5) near tip of pen



43 -- Close-up of 1995 Plymouth Voyager's driver side adjustable D-ring showing evidence of loading on the ring (cell E5)



44 -- Close-up of 1995 Plymouth Voyager's left front door sill showing crack to plastic molding near lap belt retractor



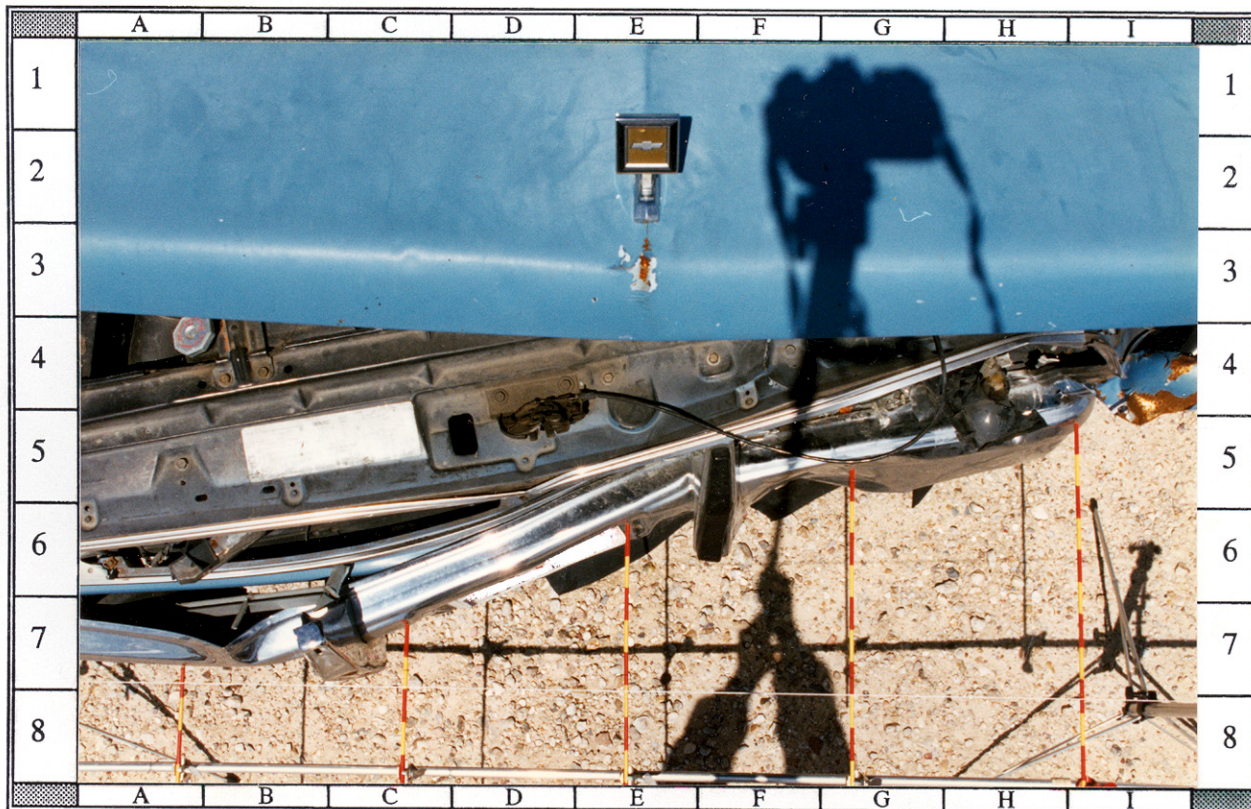
45 -- Close-up of 1995 Plymouth Voyager's second seat left side D-ring showing evidence of loading on the ring (cells E4--E5)



46 -- Close-up of 1995 Plymouth Voyager's second seat right side D-ring showing evidence of loading on the ring (cell E5)



47 -- Frontal view of 1985 Chevrolet Suburban 4x2's front damage with contour gauge present



48 -- Overhead view of 1985 Chevrolet Suburban's frontal crush with contour gauge present; max crush occurs @ C₁ (see cell I5)



49 -- 1985 Chevrolet Suburban's damaged front and left front fender viewed from ~ 30 degrees L of front with contour gauge present



50 -- Reference line view of 1985 Chevrolet Suburban's front damage from left with contour gauge present showing max crush @ C₁



51 -- 1985 Chevrolet Suburban's undamaged back



52 -- 1985 Chevrolet Suburban's direct frontal damage and induced damage to right fender viewed from ~ 45 degrees right of front



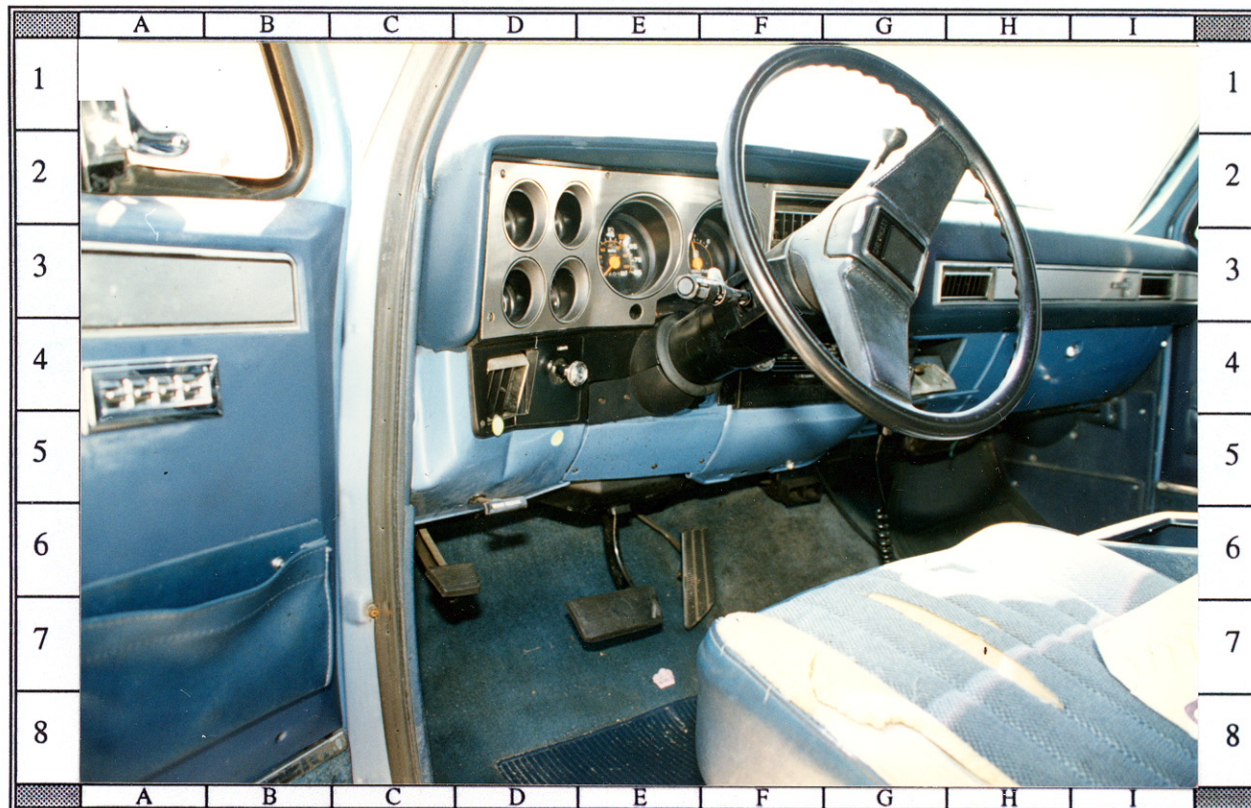
53 -- 1985 Chevrolet Suburban's direct frontal damage and induced damage to right fender viewed from ~ 15 degrees right of front



54 -- Reference line view of 1985 Chevrolet Suburban's right side from front showing right fender shift--with contour gauge present



55 -- Interior of 1985 Chevrolet Suburban's driver door and LF seating area; NOTE: driver contact evidence to L lower dash (cell E5)



56 -- 1985 Chevrolet Suburban's driver seating area from left showing steering assembly & instrument panel & dash with driver contacts



57 -- 1985 Chevrolet Suburban's driver seating area from right rear showing sunvisor and header area; NOTE: tilted rearview mirror



58 -- 1985 Chevrolet Suburban's steering assembly and instrument panel from right front; see driver's knee contact on L dash (cell E6)



59 -- 1985 Chevrolet Suburban's steering wheel and column; NOTE: no evidence of driver loading on wheel



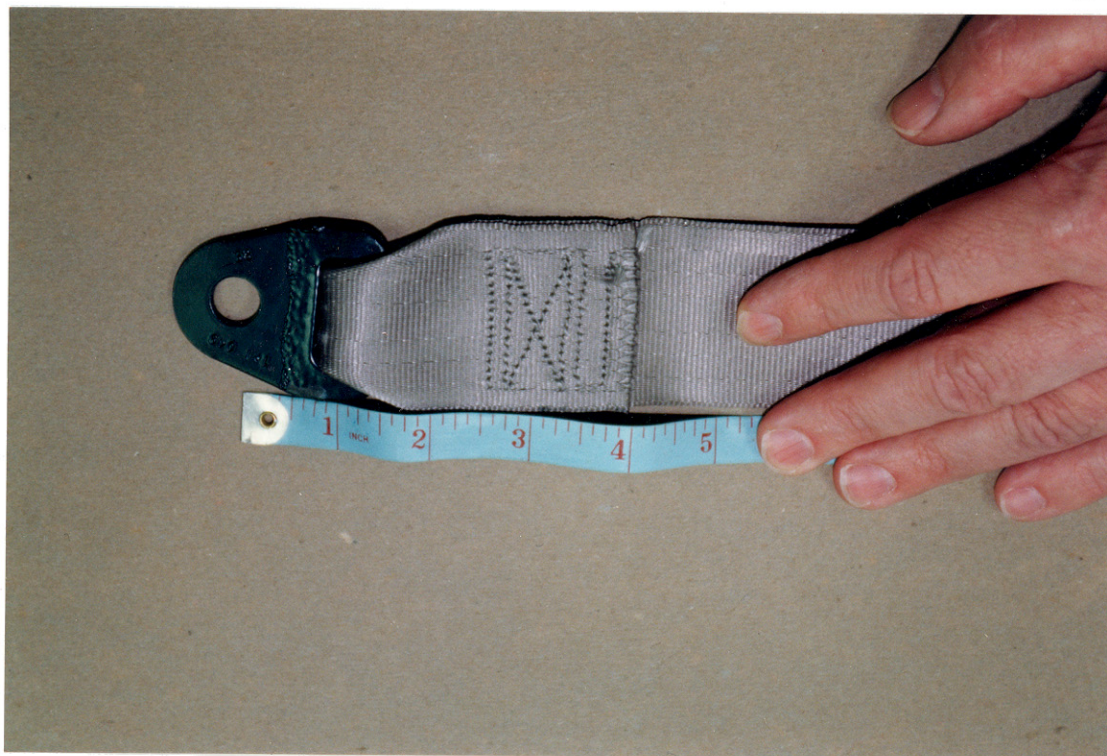
60 -- 1985 Chevrolet Suburban's right dash, glovebox, windshield, A-pillar, & windshield; NOTE: no evidence of occupant contacts



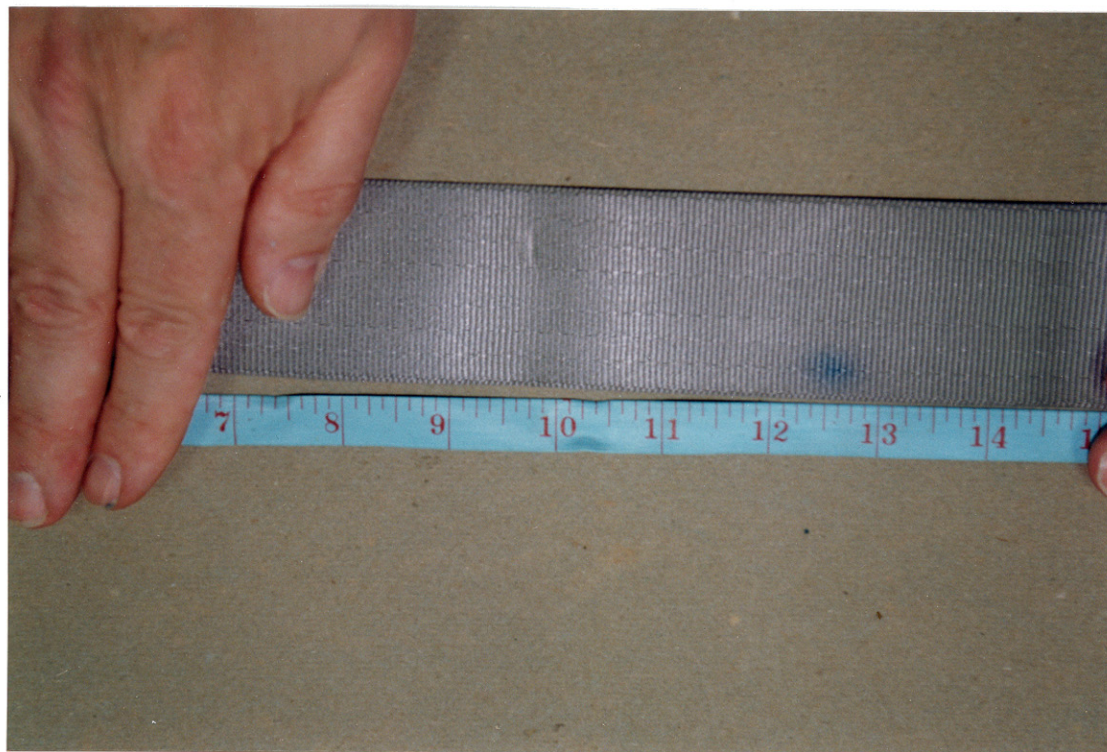
61 -- 1985 Chevrolet Suburban's folded-down second seating area & back of front seats; NOTE: manual 3-point anchorage on L B-pillar



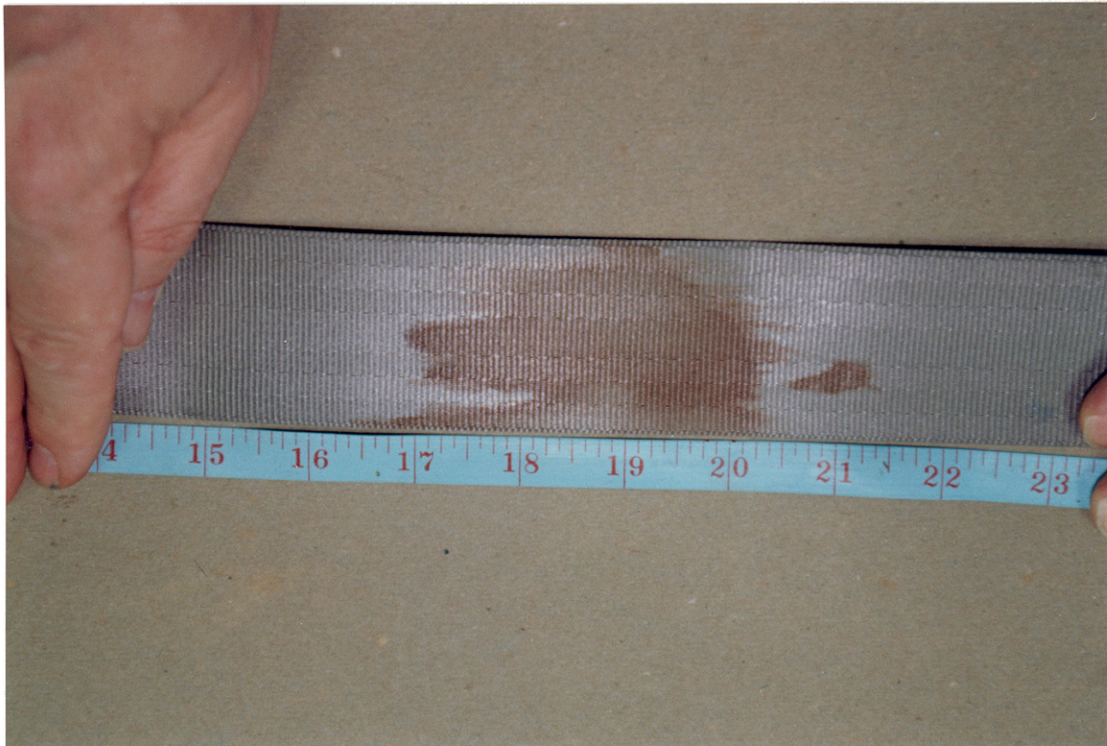
62 -- 1985 Chevrolet Suburban's cargo and folded-up rear third seating areas; NOTE: manual 3-point belt anchorages @ B-pillars only



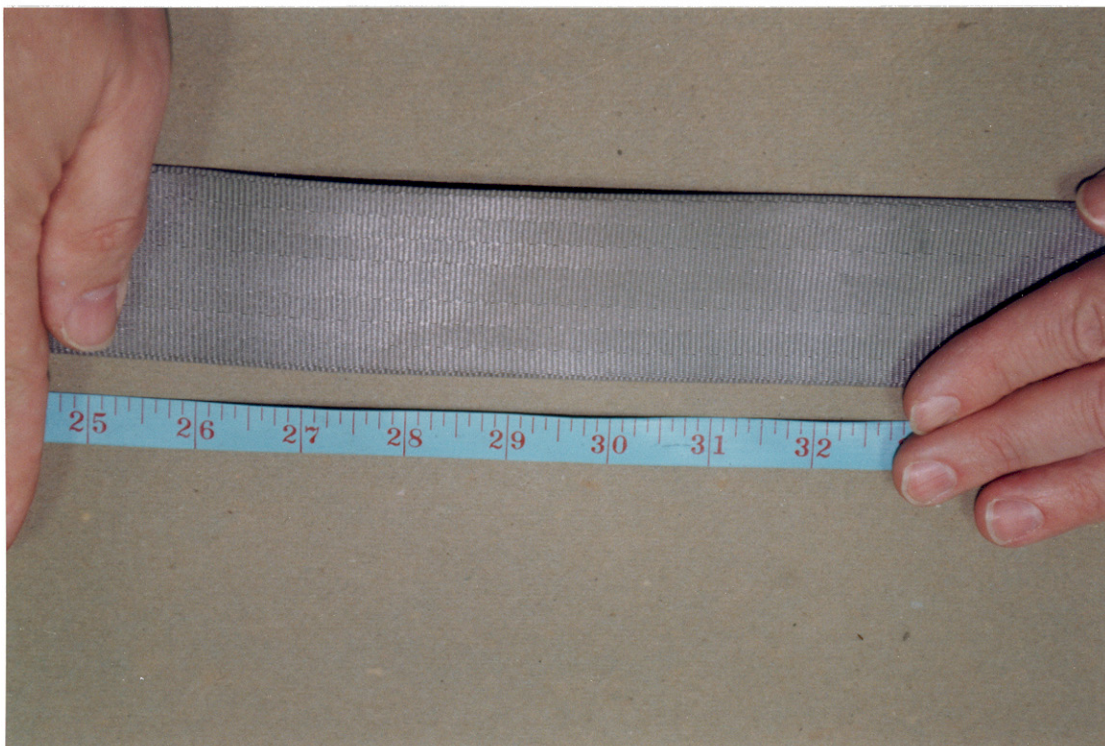
63 -- TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 1 of 5) showing side toward a restrained passenger and floor anchorage attachment



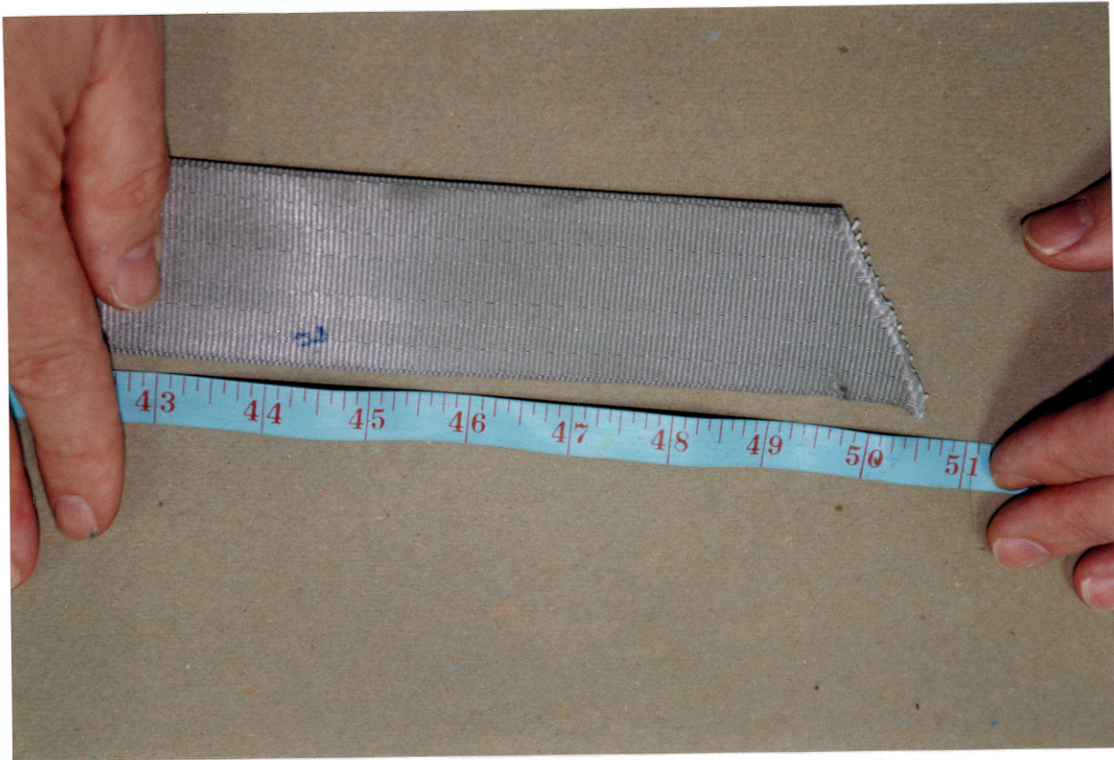
64 -- TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 2 of 5) showing side toward a restrained passenger; NOTE: blue ink mark



65 - TRC/IU: 95-08, Task: Contract:
Date: 1995 Location: Texas
Source of Photograph: at
Case Vehicle's right front safety belt (i.e., 3 of 5) showing side toward a restrained passenger; NOTE: blood pool spot



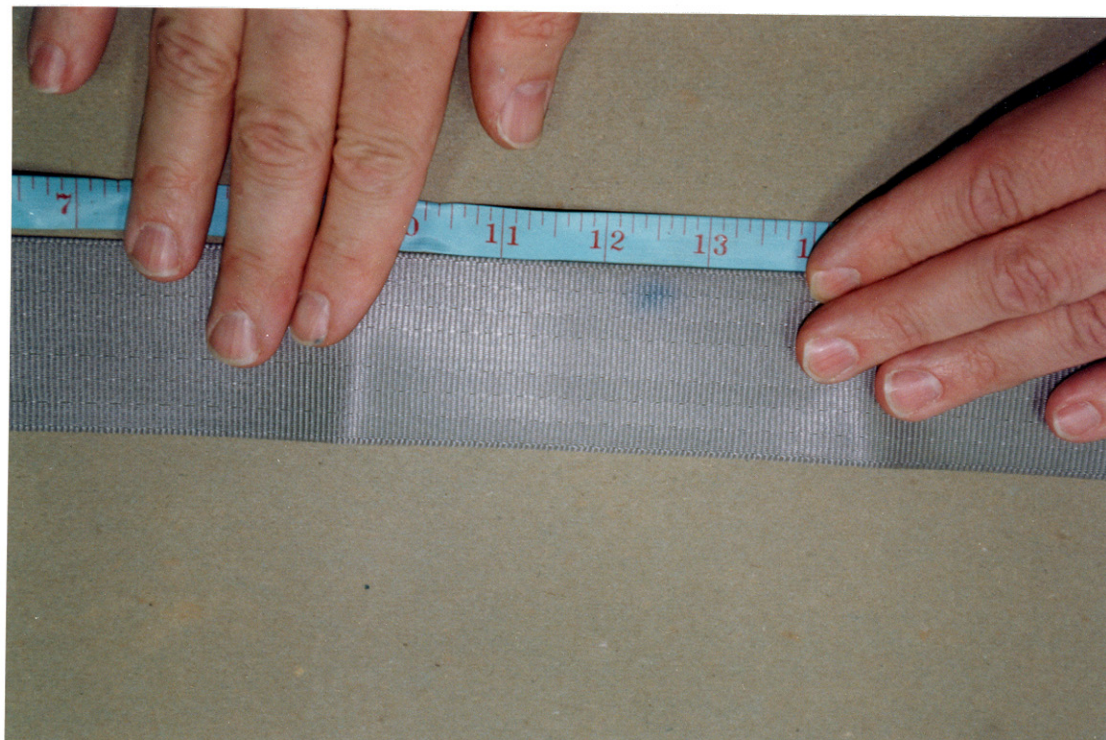
66 - TRC/IU: 95-08, Task: Contract:
Date: 1995 Location: Texas
Source of Photograph:
Case Vehicle's right front safety belt (i.e., 4 of 5) showing side toward a restrained passenger; NOTE: no evidence of loading



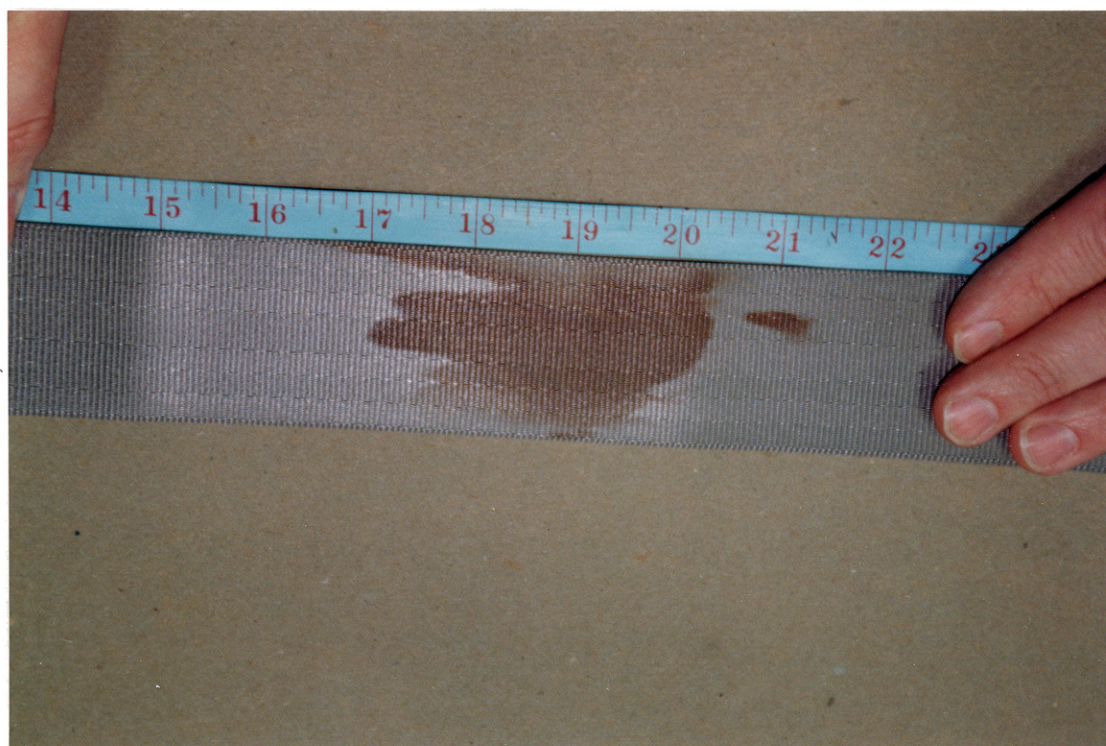
67 - TRC/TU: 95-08, Task: Contract:
 Date: 1995 Location: , Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 5 of 5) showing side toward a restrained passenger; NOTE: blue ink mark and belt cut by paramedics



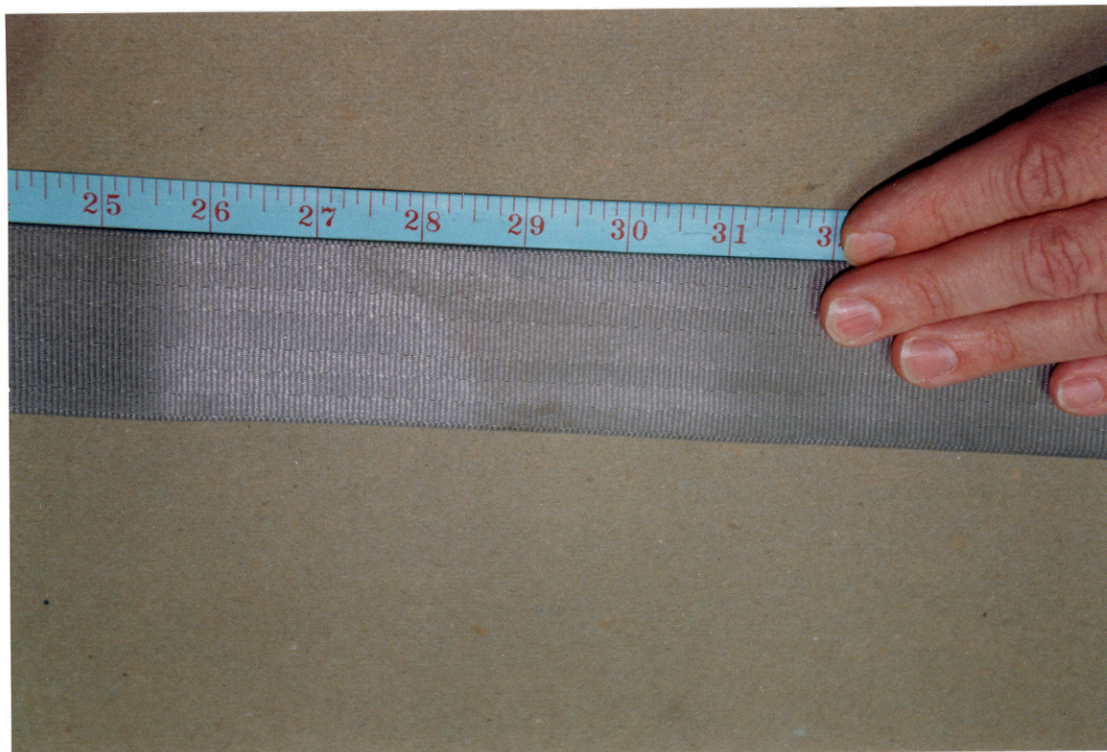
68 - TRC/TU: 95-08, Task: 0058, Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 1 of 5) showing side away from a restrained passenger and floor anchorage attachment



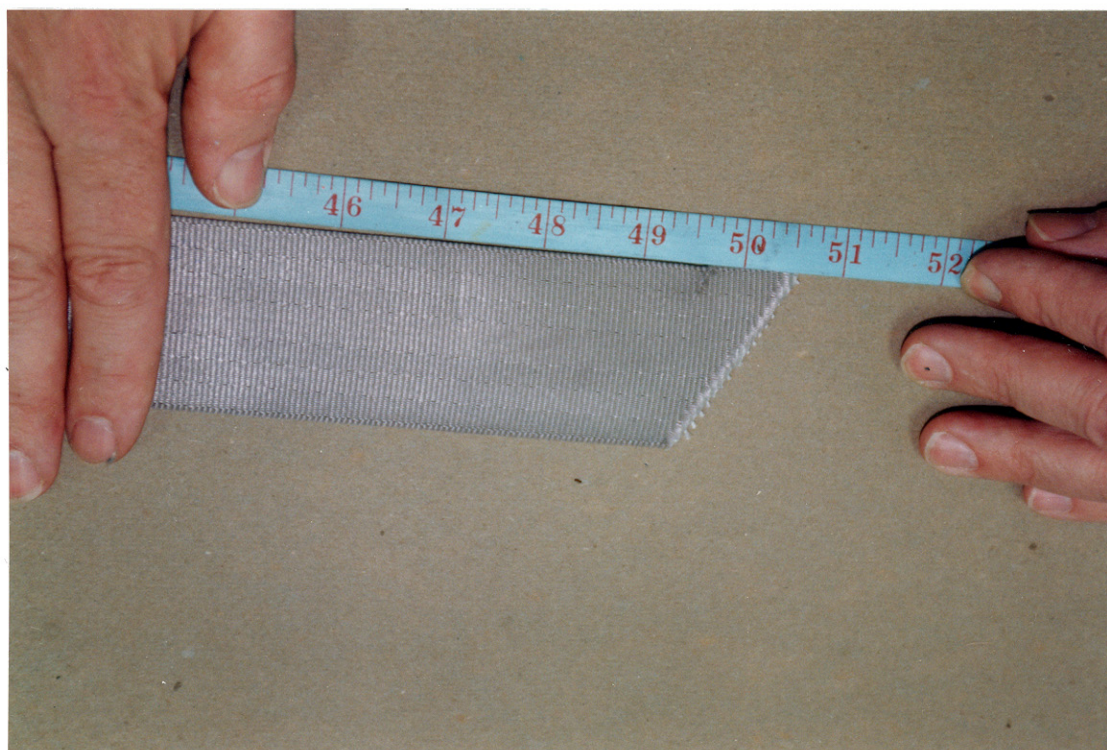
69 -- TRC/TU: 95-08, Task: Contract:
 Date: 1995 Location: , Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 2 of 5) showing side away from a restrained passenger; NOTE: blue ink mark



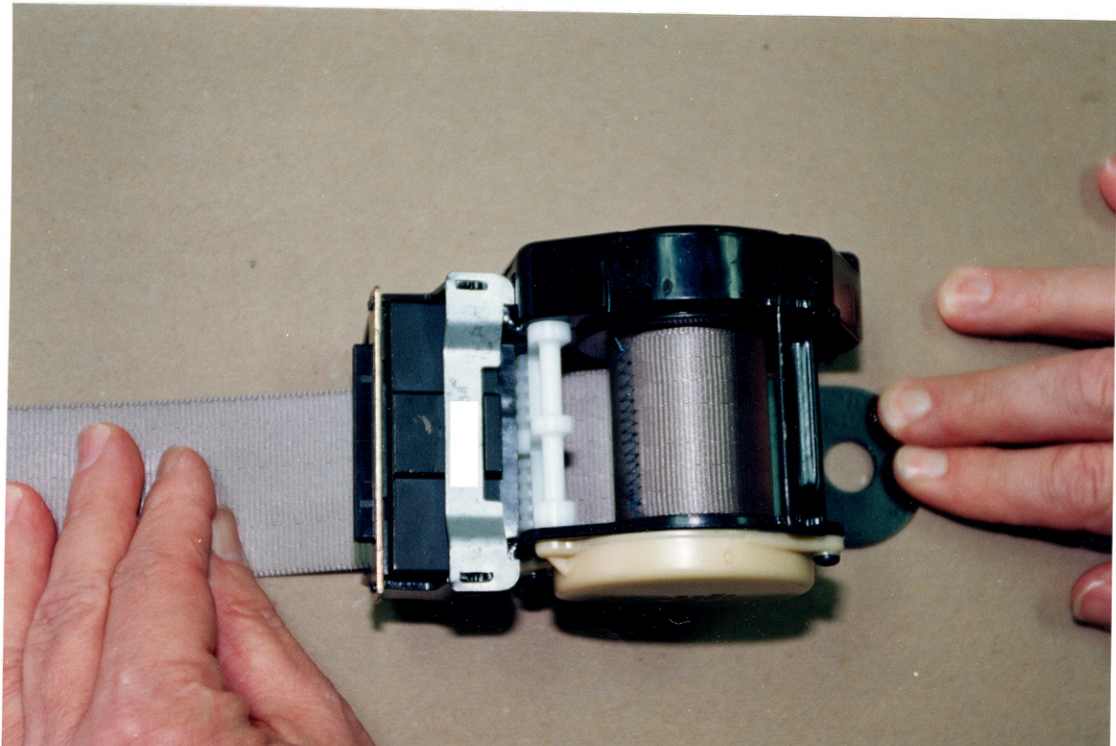
70 -- TRC/TU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Case Vehicle's right front safety belt (i.e., 3 of 5) showing side away from a restrained passenger; NOTE: blood pool spot



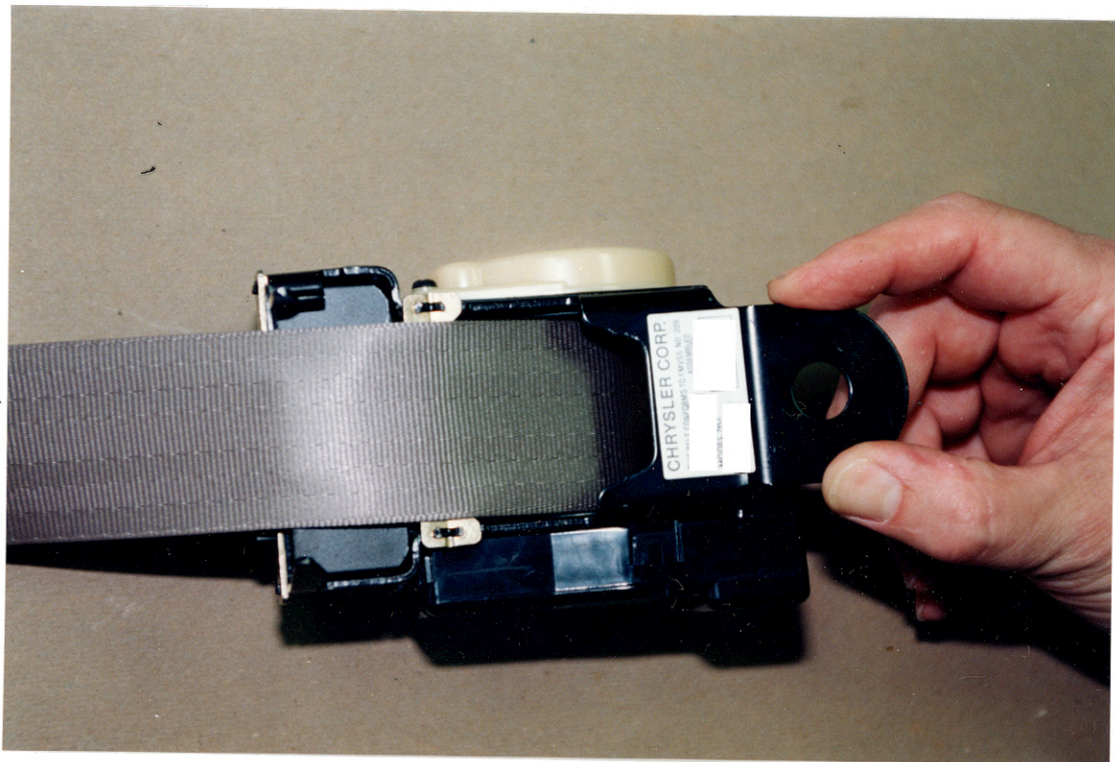
71 -- TRC/IU: 95-08, Task: Contract:
Date: 1995 Location: Texas
Source of Photograph: at
Case Vehicle's right front safety belt (i.e., 4 of 5) showing side away from a restrained passenger; NOTE: darkened area, possibly associated with loading



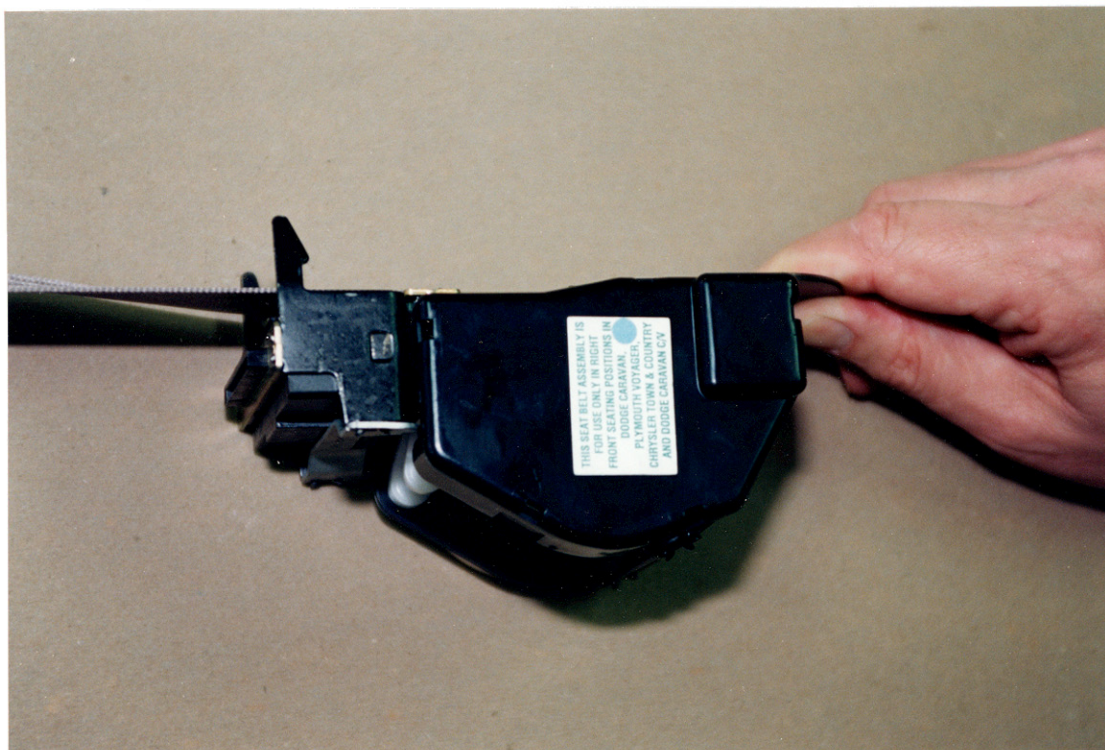
72 -- TRC/IU: 95-08, Task: Contract:
Date: 1995 Location: Texas
Source of Photograph: at
Case Vehicle's right front safety belt (i.e., 5 of 5) showing side away from a restrained passenger; NOTE: location where belt was cut by paramedics



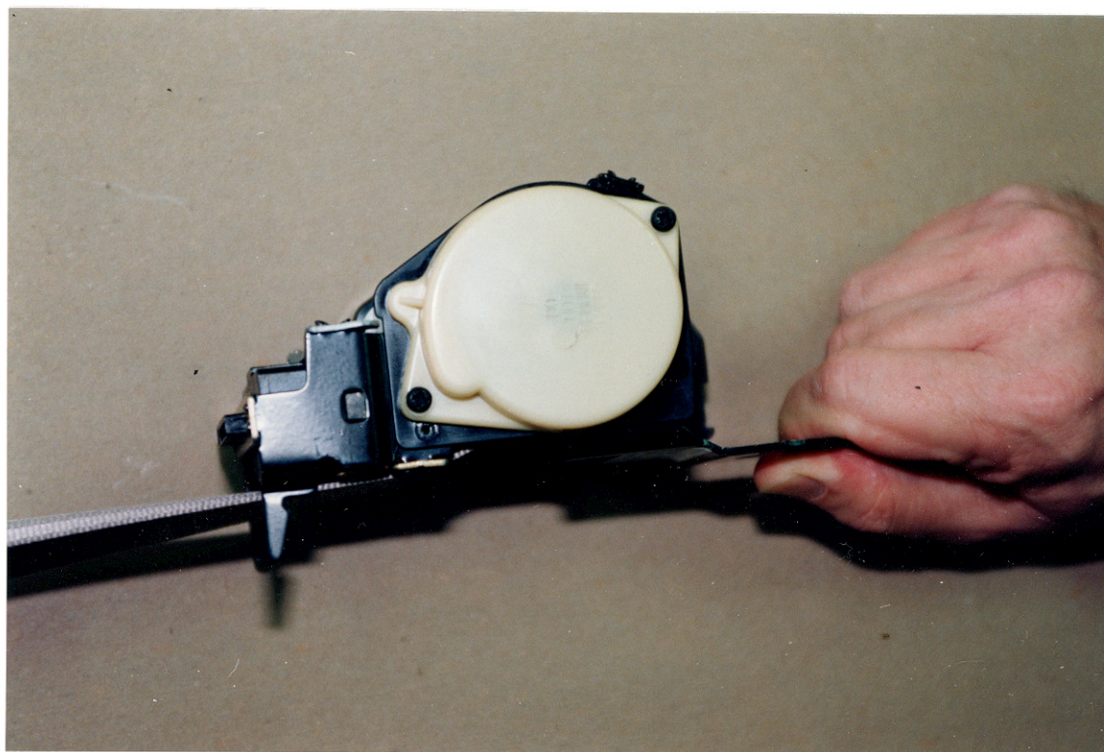
73 -- TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Medial side (i.e., toward passenger) of retractor mechanism for Case Vehicle's
 right front safety belt; NOTE: no evidence of loading on belt



74 -- TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Lateral side (i.e., toward door) of retractor mechanism for Case Vehicle's right
 front safety belt; NOTE: no evidence of loading on belt



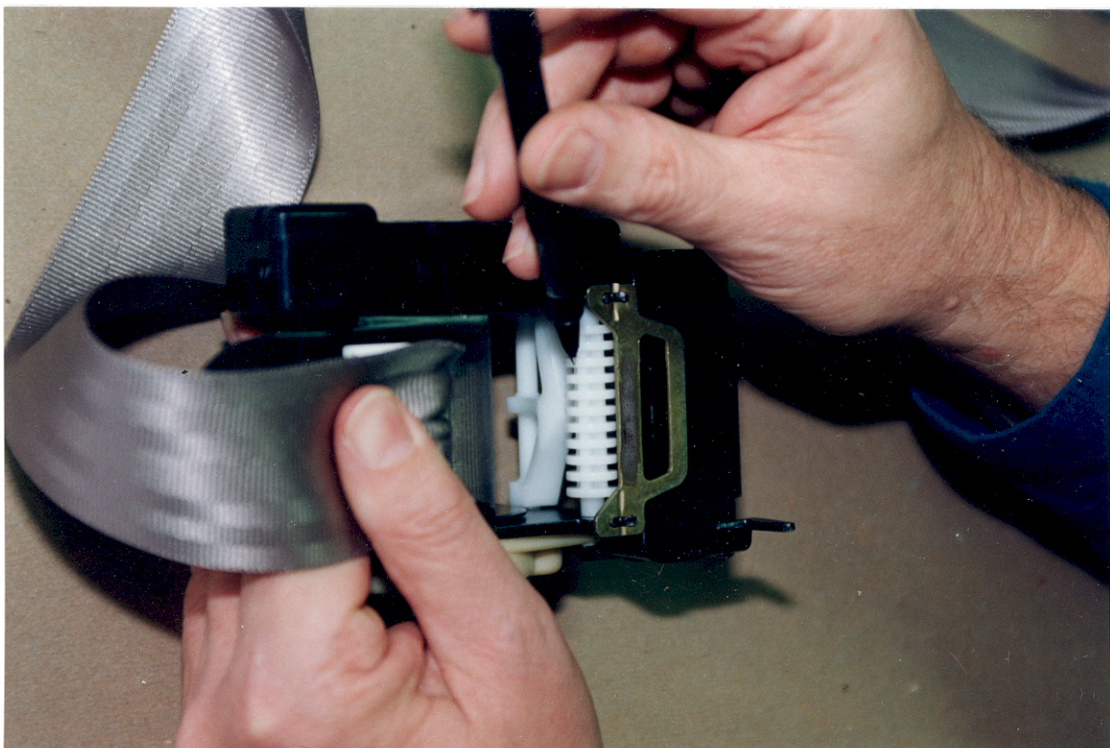
75 -- TRC/IU: 95-08, Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Back side of retractor mechanism for Case Vehicle's right front safety belt showing edge of belt toward head of a restrained passenger; NOTE: no belt loading



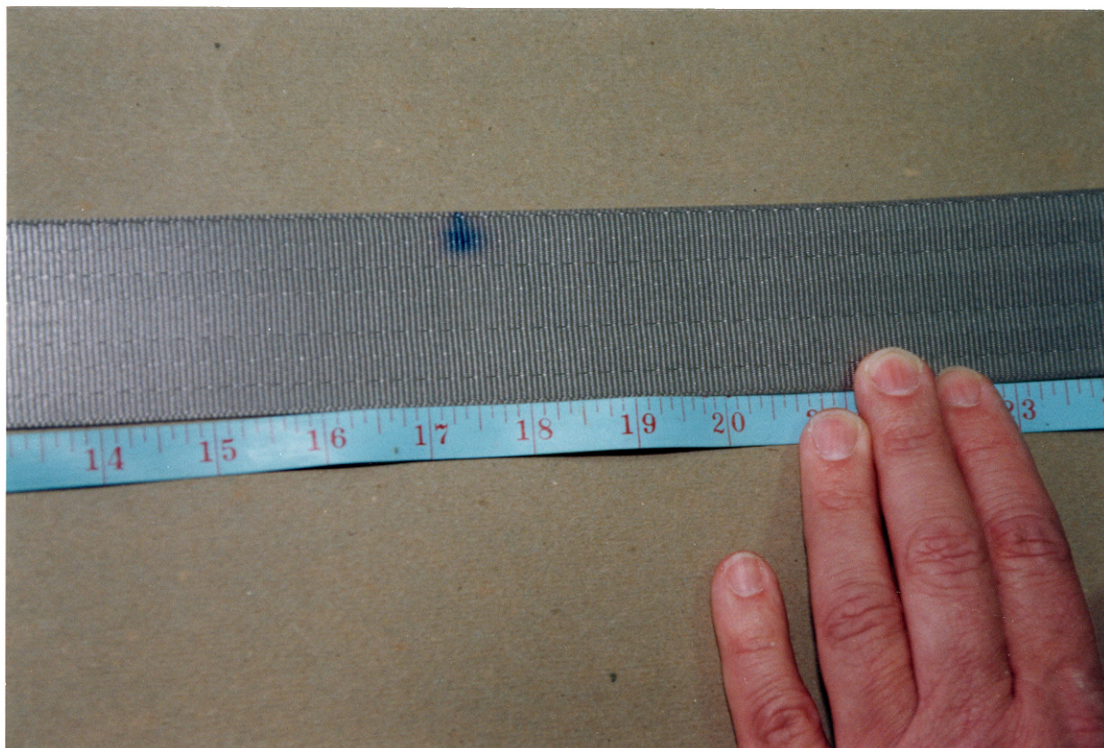
76 -- TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Front side of retractor mechanism for Case Vehicle's right front safety belt showing edge of belt toward seat of a restrained passenger; NOTE: no belt loading



77 - TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph: Center at
 Retractor mechanism for Case Vehicle's right front safety belt showing web grab-
 ber slot that belt passes through; NOTE: belt not in slot because it was cut



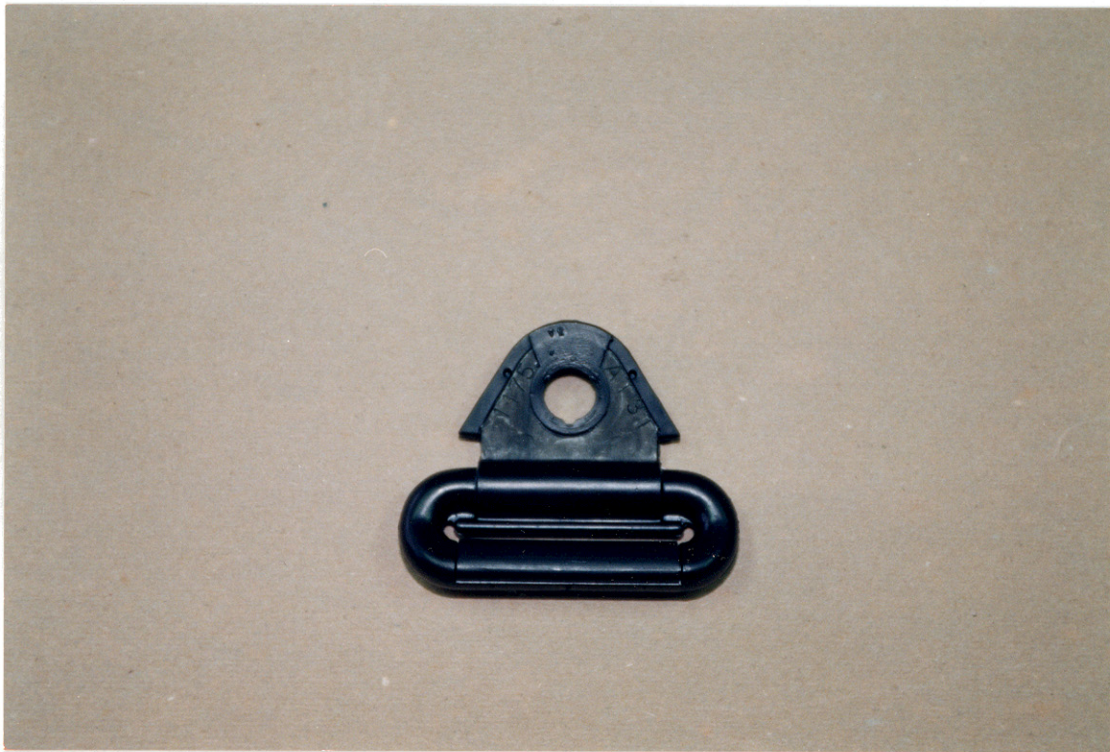
78 - TRC/IU: 95-08, Task: Contract:
 Date: 1995 Location: Texas
 Source of Photograph:
 Grabber mechanism for Case Vehicle's right front safety belt showing teeth used to
 clamp against webbing



79 -- TRC/TU: 95-08, Task Contract:
 Date: 1995 Location: Texas
 Source of Photograph:
 Webbing from Case Vehicle's right front safety belt that extends from retractor mechanism showing ink mark and no evidence of loading



80 -- TRC/IU: 95-08, Task Contract:
 Date: 1995 Location: Texas
 Source of Photograph:
 Webbing from Case Vehicle's right front safety belt that was connected to retractor mechanism; NOTE: belt was cut by paramedics



81 - TRC/TU: 95-08, Task: , Contract:
 Date: 1995 Location: Texas
 Source of Photograph: at
 Lateral (i.e., toward "B"-pillar) side of "D" ring from Case Vehicle's right front
 safety belt showing no evidence of loading (i.e., abrasions)



82 - TRC/TU: 95-08, Task: , Contract:
 Date: 1995 Location: Texas
 Source of Photograph:
 Medial (i.e., toward passenger) side of "D" ring from Case vehicle's right front
 safety belt showing no evidence of loading (i.e., abrasions)